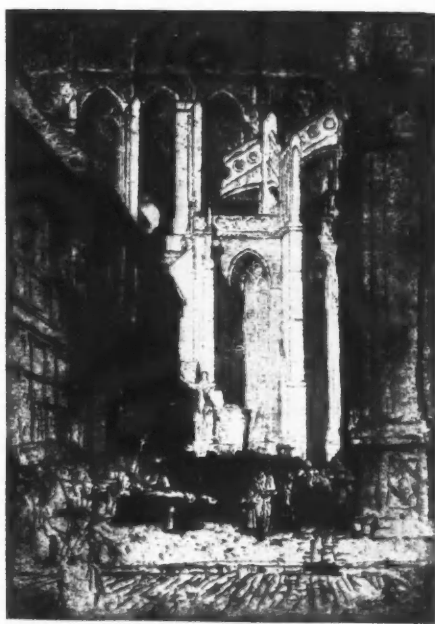


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BUILDING REVIEW  
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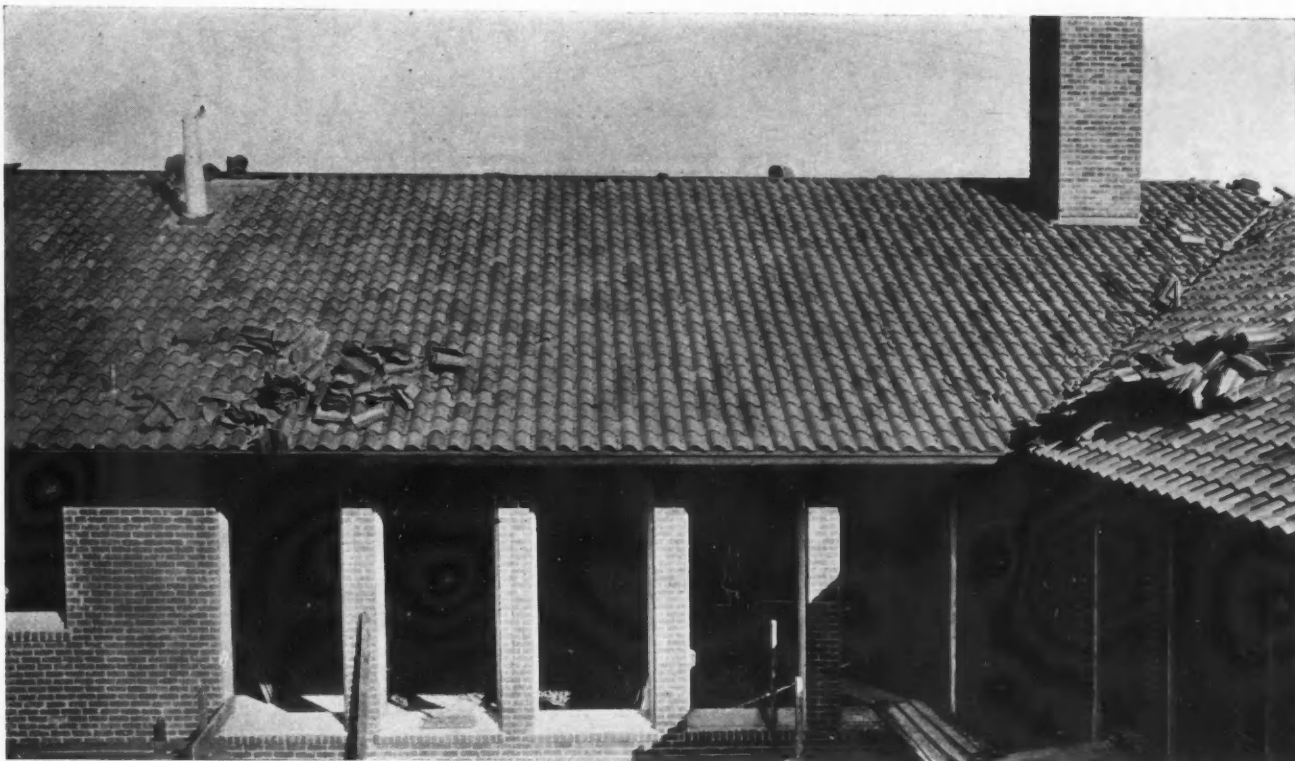
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DETAILED VIEW MONROE SCHOOL, SAN FRANCISCO  
JOHN REID, Jr., Architect

# Burned Clay Roofing Tile

"THE EVERLASTING MATERIAL"

The above picture taken during construction shows the variegated shades produced by this tile roof, harmonizing in a pleasing tone with the face brick. The mottled effect is noticeable to some extent in the photographs on this page and the one opposite.

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# *The* BUILDING REVIEW

VOL. XVIII

SAN FRANCISCO, JULY 1919

No. 1

## *The* ARCHITECT

### SOME OBSERVATIONS ON CALIFORNIA ARCHITECTURE

By W. S. DAVENPORT

THE American apartment is now designed to satisfy permanent tenants. A home is not a real home when it is so small that the bed must be screwed onto the inside of a closet door, or be run through a wall and under a kitchen table. It is a sort of Pullman sleeping-car to be changed once a quarter.

The apartment house of European cities is the normal residence of the bulk of the population. The cool summers make this way of living quite satisfactory. One can live near one's business and save time, money and nerve energy to an extent not realized until one has moved from the suburb to the center of the town.

The continental European city apartment is a full-sized residence. The front door of the house is large enough to take in a furniture wagon, the ceilings are high, the bedrooms and other rooms except the servants' room are large, there is a long row of windows onto the street and a second one into the open space in the middle of the block. This is the proper way to live in a city. The greatest economy in circulation results from living one over another in as many stories as the poorer tenant will consent to climb without elevators. A city built up solidly with such apartment houses concentrates a large population into a small space. There is saving in everything, in laying out streets, in piping, lighting and policing, in delivery of goods and in transportation service.

We could live in this way on the Pacific Coast. Our summers are sufficiently cool, at least along the sea coast. Here, as at many other points we would do well to look to Europe for our guide rather than to other parts of this country where the conditions of climate are entirely different.

The American bungalow derives an effect of cozy spaciousness by throwing several rooms into one large living room. The European villa avoids stuffiness and retains privacy by having high ceilings and tall narrow doors. The visitor is not embarrassed at finding himself in the heart of the family as soon as he steps inside the door. When the ground plan is small and there is but one story, the French of the Bay of Biscay have a very clever way of utilizing this small space. Not a foot is wasted as inside entry. The bungalow may be perhaps only 12x36 feet clear inside space. If the lot is narrow the house has its rear wall along one boundary, gable to the street. There are three rooms twelve feet square, each with a glass door letting out into the façade; the rear of the next house being a blind wall there is adequate privacy to rooms in the garden. The floor is nearly flush with the ground. The ceilings are very high. The center room is a kitchen, the two end rooms are salon and bedroom, and connect with the kitchen by very narrow doors, leaving considerable wall space for furniture. Opposite the middle door in the rear wall is a picturesque blacksmith's forge of a

fire place, with andirons and a crane. The floor is laid with small hexagonal red tiles. The other rooms have bleached wood floors without sills. The pot au feu is cooked on the crane, broiling is done in small pots burning charcoal, on the raised hearth. There is an overhanging hood. The construction is hollow tile plastered inside and out, or there may be thin Roman bricks outside with sand-stone corners. The roof is Spanish tile. In the town there is a toilet; in the forest the toilet, like Kipling's cat, walks by itself. The cheapest of these houses are remarkably simple, and cost about \$600 to build.

These little bungalows are built by the thousand in the town of Arcachon near Bordeaux. Built without a cellar, on soft sand, in a pitch-pine forest or on a beach, with the gorze and broom in blossom all the year round, they are the acme of dainty simplicity, very satisfying esthetically, with a dash of French style about them. The tall glazed doors are very effective in giving dignity to the house and in marking it as a pure-bred type not to be mistaken for anything else.

For a roomy country site in Southern California similar construction built on three or four sides of a hollow square would make an attractive and cheap country residence. The dry summers make it difficult to keep large grounds properly cultivated, and anything less than complete freshness of vegetation is worse than the absolutely untouched, brown, dry surface of the California summer landscape. The little enclosed patio can be kept separate and green, affording a pleasant contrast with the view outside of blue emptiness of space down over a canyon with its clean dust-free brown sage up to the outer walls. There must be here and there an extra space between two rooms divided into a common bath and two separate closets.

This principle of sharp division between cultivated garden and brown field should be applied to small town-planning in Southern California. There is too much of the half-way thing: too many ugly, raw wounds of cut banks; dusty, over-wide streets; of washed-out cement sidewalks and gullies, half-cultivated gardens, or good ones contrasting unpleasantly with vacant lots adjoining.

The climate requires that a town be built out solid from a central point, with rather narrow streets for chumminess and economy, paved as soon as laid out. There should be no lots left vacant while others farther out are built on. The town should be distinct from the surrounding country, every bit of space within it either building, cement street and path, or planting. Built thus it would be an attractive little green oasis, finished, dust-free, and surrounded by the California summer landscape, unobjectionable because unwounded. This is the proper way to build a village in Southern California. It would be more beautiful, less raw and depressing, and cheaper and more convenient to live in.



## THE ARCHITECT AND THE BUILDING COMPANY

THE Committee on Professional Relations of the Alumni Association of the School of Architecture of the University of California was asked to consider the question: "Will the position of the architect in the future be benefitted by his entering the building field?" The following is the report of the Committee, consisting of Irving F. Morrow, Architect, Chairman; Walter LeRoy Huber, C. E.; and Edwin J. Symmes, Architect.

IN recent years a large amount of building has been erected without the employment of architectural services. In part the work thus diverted from the architect has fallen to the lot of the structural engineer, in part to that of the all-embracing building company which includes in its scope financing, designing, and construction. To the former have gone principally factories and other industrial establishments; the list of works handled by the latter is of surprising variety and includes structures of no inconsiderable importance. Whether or not this practice is in the ascendant there are no data at hand to determine; but certain it is that increased attention has of late been paid to it by the architectural profession. On the one hand it witnesses the covering of the country with structures which constitute aesthetic offences as flagrant as they are unnecessary; on the other hand it watches the progress of extensive building activity while its own offices remain empty. These two complaints are variously stressed according to the temperament and interests of the individual; either is admittedly a sufficient cause for legitimate discontent.

What is to be done? Advertise, says the practical man. Look into our own hearts, search out our shortcomings, and remedy them, says the idealist. The range of suggested solutions is various and extensive. The proposal which is most revolutionary, most thoroughgoing in appearance, and the only one of which it is a question here, is that the architect meet the building company on its own ground and form his own organization offering everything from soup to nuts. Failing this, it is urged, the profession is doomed to ignominious and impecunious extinction.

On first thought, or more properly speaking, before first thought, the plan undoubtedly displays a specious plausibility. It possesses a comprehensiveness which passes for service and efficiency; it appears to revive the old master-builder idea, placing the designer in closer touch with those on whom he depends for the execution of his work; and it sets the architect on an equal footing with those who now seem to be playing a winning game. None of these arguments, however, will withstand serious examination.

It requires but a moment's reflection to realize that an article purchased in a department store covering a block in area is not necessarily better or easier to obtain than one acquired in a fifteen-foot shop. The idea that the quality of service must be improved by its extension is a fallacy most persistent, yet one which should be discredited by a device as simple as opening the eyes. A building is neither more properly nor more easily built because of a commercial identity between the party which designs and the party which constructs. On the contrary

there enters here this objection founded on the orthodox code of professional ethics: If the architect be financially interested in the construction, who shall act as the disinterested guardian of the client's interest? The point of view may be regarded as old-fashioned and academic; undoubtedly it is not worth pressing too far, in view of the obvious fact that no system can be devised to circumvent an active desire to be dishonest. Under the present system the architect is at liberty to fleece his client in collaboration with the contractor if he so desires; and there is no reason to suppose that the client would be the worse off for being fleeced by one unified organization. The idea embodied in the objection, however, hearkens back to a standard of professional dignity and disinterestedness which it would be unfortunate to reject too thoughtlessly.

The assumed analogy between the mediaeval master-builder and the modern building company under its most favorable conditions is an illusion based on an entire misunderstanding of the essential differences separating the two systems. The master-builder properly so called was at once designer and craftsman, and through his close co-ordination of all phases of his work achieved wonderful results. He was, however, the product of a particular social and economic order, and can not be revived by such simple expedients as lawyer's contracts and financier's accounts. Where the mediaeval guild was actuated by a desire for service, the modern commercial organization is spurred on by the desire to "put one over." The master-builder was interested in the building of his design; the promoter is interested in the selling of his. It is beside the mark to argue that the conscientious architect, as head of his own building organization, would instill into it ideals higher than the current commercial ones; by so doing he would land himself outside of the very class into which it was his ostensible desire to gain a place; the pressure of circumstances would be too strong to be withstood.

Co-operation is essential, much more than obtains today—genuine collaboration between architect and engineer, intimate contact between architect and craftsman. There is no guarantee that this ideal would be consummated by placing all these parties in the employ of a super-organization headed by the architect. It is more than probable that the increase of administrative details would entail a proportionate diminution of real contact between the architect and his co-workers.

In addition to all this, the success of the architect in such an enterprise is highly problematical. Few men possessed of the temperament and training which make a first-class architect have in addition the knowledge or the ability to operate an extensive commercial organization such as the large building company. Even supposing an architect competent to handle this work, it could only be undertaken at the price of distraction from the other phases of his work. There is one service which the architect as such is specifically qualified to perform, and which nobody else is qualified to perform; namely, to design buildings. If the designer shall neglect his function, how shall our buildings be designed?

As a solution of the architect's problem, therefore, the building company is a specious device. It is but another manifestation of the current materialism which seeks to



THE BUILDING REVIEW



LOUVAIN—L'HOTEL DE VILLE

## THE BUILDING REVIEW

solve all difficulties by the piling up of elaborate machinery. If we can only encumber the spirit with a sufficient burden to crush and quiet it, somehow, it is felt, the flesh must emerge triumphant.

We know that the building company is unqualifiedly commercial. We know that its buildings are not built better, more easily, nor more cheaply, than those independently designed and constructed by architect and contractor respectively. We know in addition that they are less well designed, both as to practical plan and aesthetic effect, and often as to structure as well. We know this is inevitable, because such companies employ only second-rate talent in both architectural and engineering departments; first-rate talent will accept neither the salaries offered nor the conditions imposed. (It may be well to note here parenthetically that the reputable engineer is faced by analogous problems arising out of the incursions of the commercially organized company). All of these things we know inhere in the very nature of the building corporation. Yet their clients are astute business men, possessed of practical common sense and experience. Why do they continue to have their work executed in this manner? Obviously there is but one answer: because they believe that in so doing they are obtaining the best results; any other assumption is preposterous. The architect is neglected by the public because the public does not know the nature nor the value of his services. Buildings are erected without his services because the public does not know, or does not care about, the difference between a good building and a poor one. This is the situation in a nut shell. Is it one to be remedied through the organization of a building company by the architect?

A musical composer, bewailing the apathy of the public toward serious music, while dramatic syndicates are coining money out of trivial and meretricious musical comedies, may lease a circuit of concert halls, hire his own orchestra and singers, print his own tickets and programs, and so on, all with no guarantee that the net result of his

pains will be other than the diversion of his energies from his real business—composition.

Worth-while art is a reciprocal enterprise involving artist and public. If a community contains an insufficient number of persons who desire good music, good drama, good painting, good architecture, and the rest, then these things can not be made to exist. Where public support is not forthcoming, no assumption of impressive disabilities by the artist can avail. The neglect of the field in which one is qualified for a field in which one is not qualified means probable failure in both. As long as the public is ignorant of, or indifferent to, the difference between a good building and a poor one, there is no form of compulsion or seduction which can force it to choose a good one—particularly when it harbors the misapprehension that it is the poor one that best serves its purpose. On the contrary, when the levels of public intelligence, culture, and taste are raised to the point where the facts are appreciated, there will be need of no further argument on the behalf of the well-designed building. The only real solution is the education of the public. When it has been taught that good architecture is not less practical than poor; what differentiates good architecture from poor, and why; what service the architect performs, and why he is the only one by whom such service can be performed; then and then only will it reject the meretricious and exact the meritorious without the prodding of disgruntled practitioners, or the organization of cumbersome machines.

This is the solution for those whose predominant interest is in architecture as an art and as a profession. In the meantime, while the public is receiving the requisite education, it may offer slight consolation to those who are interested in architecture primarily as a business. To them two alternatives present themselves. If they can successfully organize and operate their building companies there is no reason to refrain from doing so. But probably the most profitable course will be to embark in other fields of activity.

## NOTES ON THE PLATES

### CHURCH OF THE ANGELS, GARVANZA, CAL.

Coxhead & Coxhead, Architects.

(Plates 1-3)

**T**HE Church of the Angels was erected twenty-four years ago at Garvanza, California, at that time an isolated hamlet, but now part of the continuous development between Los Angeles and Pasadena. The church was built by the late Mrs. Campbell Johnston, of London, as a memorial to her husband.

Built upon property adjoining a ranch belonging to the family, and upon the direct route between Los Angeles and Pasadena, it became one of the points of great interest to visitors to Southern California. It was no unusual thing on a Sunday afternoon to see the "Little English Church," as it was often called, crowded to the doors by eastern visitors who had ridden out in riding breeches and habit to enjoy its picturesqueness and attend service. Today, the more rapid method of automobile transportation furnishes such large congregations that it is difficult to obtain entrance during the hours of service.

The church was designed by Mr. Ernest Coxhead, of Coxhead & Coxhead, Architects, who was at one time associated with the diocesan architect of Middlesex, Eng-

land, to whom belongs all credit for the English character of the work.

After completion, the church and property were deeded to the Diocese of California and are now under the jurisdiction of Bishop Johnson, of the Southern Diocese.

### RANCH HOUSE AT YAKIMA, WASH.

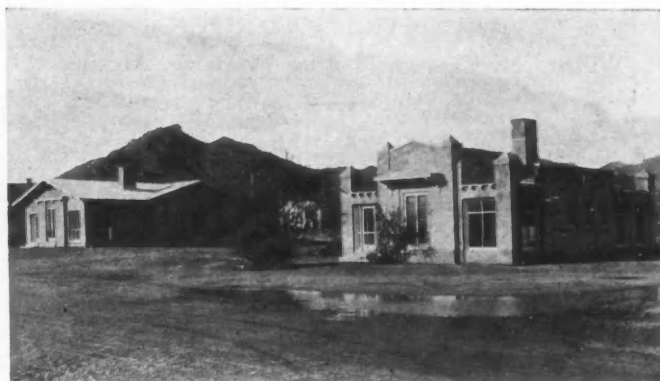
William M. Kenyon, Maurice F. Maine; Architects

(Plates 4-7)

**T**HIS house is located five miles out from Yakima, Washington, formerly known as North Yakima. The estate consists of about one thousand acres, most of which is devoted to apple growing. The property is surrounded by low mountains, and Mount Hood and Mount Adams may be seen in the distance. The outlook from the south, on which side the court is located, is especially picturesque, showing a winding creek near the house and vast stretches of orchards extending to the hills.

The site selected is on a hillside with a variation in grades of about forty feet. Several sets of steps furnish means of access between levels, and a winding driveway connects the high and low levels. A branch from this driveway communicates with the service court.

## THE BUILDING REVIEW



STREETS OF AMERICAN HOUSES

TOWN SITE, NEW CORNELIA COPPER COMPANY, AJO, ARIZONA

WILLIAM M. KENYON, MAURICE F. MAINE, Architects

The house is constructed of local stone, three kinds being used, laid up at random, in large, light colored joints. The treatment throughout is rugged and in keeping with the surroundings.

The first floor level is about two feet above the higher grade, and the floor of the court is six inches lower than this level. Steps lead from the court to the lower levels. In the basement are the rooms for the care-taker, and under these rooms there is a sub-basement, the floor of which is six inches above the service court. The space in the basement under the living room is devoted to a large swimming pool.

The inside walls of the tower are of stone laid up about the same as the exterior walls except that rugged Moravian tiles are introduced somewhat irregularly. The stone steps ascend around a central shaft leading up to a room just under the top lookout. From the tower room the steps are located outside leading up to the lookout.

In the second story a large library is located over the entrance. This room is reached from the tower and connects with the living room by balcony in the top part of the latter. There are many bedrooms in the second story for both family use and for servants.

The bedrooms and bath rooms are finished in white and the other principal rooms and the long corridor are finished in plain white oak, made rough with re-sawed surfaces. The trusses and ceiling beams are rough, solid timbers without finish of any kind.

All of the inside wood finish was gotten out in Minneapolis by William A. French and Company. This Company also furnished the house, making a large part of it specially. They did the inside painting and decorating. Their Mr. Lawford did the mural work over the living room fireplace and over the dining room entrance at the east end of the long corridor.



GENERAL VIEW OF PLANT

NEW CORNELIA COPPER COMPANY, AJO, ARIZONA



## THE BUILDING REVIEW

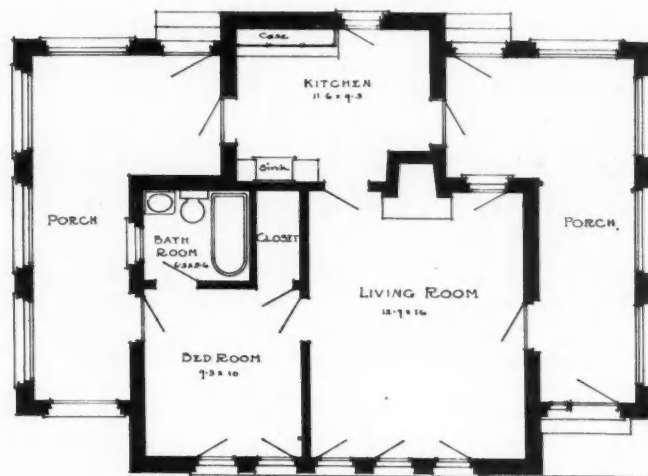
### TOWNSITE, AJO, ARIZONA

William M. Kenyon, Maurice F. Maine, Architects  
(Plates 8-12)

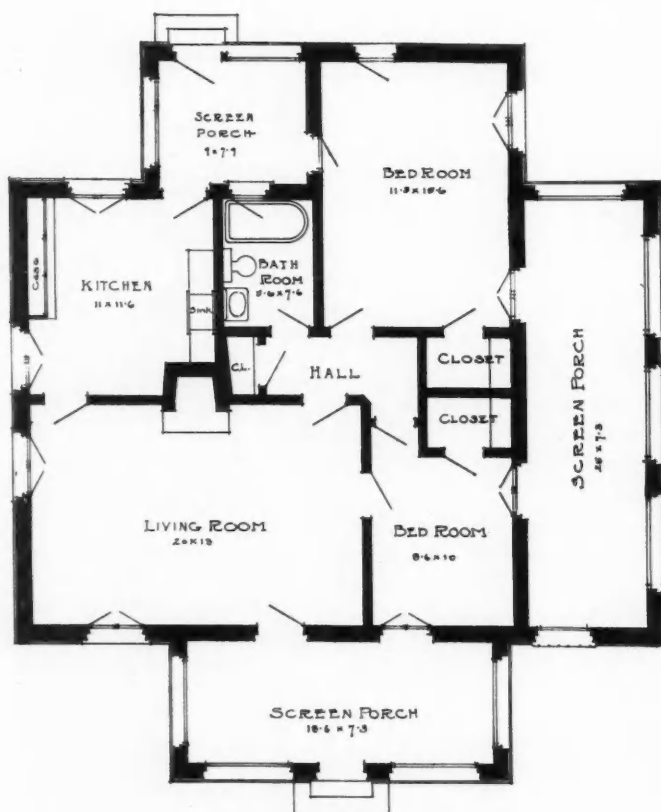
AJO (the word means "garlic"), is situated in southwestern Arizona, about forty miles from the Mexican border. For several years, the New Cornelia Copper Company has maintained an experimental plant here in order to determine the proper and logical manner in which to proceed with permanent improvements. The ore deposit here is of low grade copper, and is treated in the new plant by the electrolytic process. The town being forty miles south of the nearest railroad line, the company constructed its own line connecting Ajo and Gila.

The original town of Ajo was little more than a mining camp, a collection of shacks made of almost everything. The general effect was somewhat picturesque if the observer stood off at the proper distance. The new town was laid out a short distance from the old, with the idea in mind that the latter would be removed. Fortunately, or perhaps unfortunately for some, the old town was destroyed by fire.

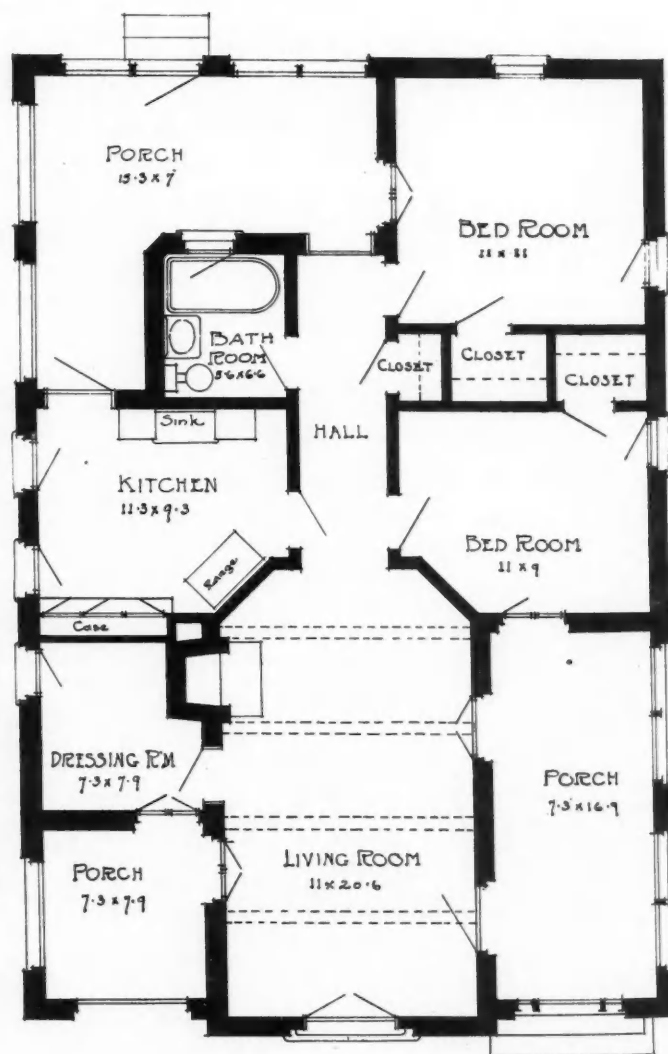
The company established the new town of Ajo in order to give its employees a comfortable and attractive place in which to live, thus insuring a more stable community. All of the buildings are modern and of hollow tile or reinforced concrete construction with stucco exterior finish. The architectural style is crude Spanish or Mission.



FLOOR PLAN AMERICAN HOUSE NO. 3



FLOOR PLAN AMERICAN HOUSE NO. 9



FLOOR PLAN AMERICAN HOUSE NO. 13

PLANS OF AMERICAN HOUSES  
TOWN SITE, NEW CORNELIA COPPER COMPANY, AJO, ARIZONA  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects



# Official News of Pacific Coast Chapters, A. I. A.

The regular minutes of meetings of all Pacific Coast Chapters of the American Institute of Architects are published on this page each month.

**San Francisco Chapter, 1881**—President, Sylvain Schnaittacher, 333 Post Street, San Francisco, Cal.; Secretary, Morris M. Bruce, Flood Building, San Francisco, Cal. Chairman of Committee on Public Information, William B. Faville, Balboa Building, San Francisco. Chairman of Committee on Competition, William Mooser, Nevada Bank Building, San Francisco. Date of Meetings, third Thursday of every month; Annual, October.

**Southern California Chapter, 1894**—President, H. M. Patterson, 324 O. T. Johnson Building, Los Angeles, Cal. Secretary, H. F. Withey, 621 Exchange Building, Los Angeles, Cal. Chairman of Committee on Public Information, J. E. Allison, 1405 Hibernian Building, Los Angeles. Date of Meetings, second Tuesday, except July and August, at Los Angeles.

**Oregon Chapter, 1911**—President, Joseph Jacobberger, Board of Trade Building, Portland, Ore. Secretary, Alfred H. Smith, Board of Trade Building, Portland, Ore. Chairman of Committee on Public Information, Ellis F. Lawrence, Chamber of Commerce Building, Portland, Ore. Date of Meetings, third Thursday of every month at Portland; Annual, October.



**Washington State Chapter, 1894**—President, Daniel R. Huntington, Seattle, First Vice-President, Carl Gould, Seattle, Second Vice-President, George Gove, Third Vice-President, Albert Held, Spokane, Secretary, Louis Baeder, Seattle. Treasurer, Frank L. Baker, Seattle. Counsels: Chas. H. Bebb, Sherwood D. Ford, and G. C. Field. Date of Meeting, first Wednesday, except July, August and September, at Seattle, except one in Spring at Tacoma. Annual, November.

**The American Institute of Architects**—The Octagon, Washington, D. C. Officers for 1918: President, Thomas R. Kimball, Omaha, Neb.; First Vice-President, Charles A. Favrot, New Orleans, La.; Second Vice-President, George S. Mills, Toledo, Ohio; Secretary, William Stanley Baker, Boston, Mass.; Treasurer, D. Everett Waid, New York, N. Y.

**Directors for Three Years**—Edward W. Donn, Jr., Washington, D. C.; Robert D. Kohn, New York, N. Y.; Richard Schmidt, Chicago, Ill. **Directors for Two Years**—William B. Faville, San Francisco, Cal.; Burt L. Fenner, New York, N. Y.; Ellis F. Lawrence, Portland, Ore. **Directors for One Year**—Edwin H. Brown, Minneapolis, Minn.; Ben L. Lubschez, Kansas City, Mo.; Horace Wells Sellers, Philadelphia, Pa.

## MINUTES OF WASHINGTON STATE CHAPTER

Minutes of 247th meeting held June 4, 1919, at 6 P. M., at the Blue Bird Cafe.

Present: President Huntington, Baeder, Baker, Booth, Borhek, Constable, Field, Gould, Ivey, Knox, Loveless, Naramore, Nevins, Park, Siebrand, Storey, Svarz, Willcox, Williams, Ziegler. Guest: Mr. Monke.

Minutes of the previous meeting read and approved.

### Reports of Committees

Mr. Gould reporting for Committee on Civic Design, highly commended the design of the recently completed bridge at Latona, and suggested that the color of the iron work be changed from black to a more suitable and harmonious color of green or gray tints. It was concurred in that the Secretary write to the Mayor suggesting the change of color.

Mr. Gould spoke also of the movement to secure another Federal Building for Seattle, and suggested that the Chapter proffer its services in the matter of selecting a site for the same, to the Supervising Architect at Washington, D. C. This was concurred in and ordered done.

Mr. Loveless, reporting for the Membership Committee was asked to outline a programme and mode of action for this committee, and report same to the Executive Committee.

Mr. Baker in reporting for the Ways and Means Committee, asked that some steps be taken to secure more funds for the Chapter, and suggested that the amount of the dues be increased. Mr. Loveless moved that the Ways and Means Committee take the matter of increased dues under advisement, and report back to the Chapter; motion seconded. Mr. Willcox moved to amend the motion to include "and that it is the sense of the Chapter that the dues be increased." Motion seconded and as amended carried.

Mr. Willcox, as the accredited delegate, was then called upon to report on the Convention of the Institute held at Nashville, and in doing so gave to the Chapter an illuminative description of its proceedings, bringing to the Chapter much of its atmosphere. Quotations were read from addresses of President Kimball, and John Bell Keeble, an attorney of Nashville, both of which dwelt largely upon the "Professional Idea." Quotations were also read from an address by Mr. Magonigle, which proved highly amusing. He reported that perhaps the most important item of interest brought out by the Convention was the emphasis put on the "Professional Idea" and recalled the President's hope of a national affiliation of all professional bodies, which was concurred in by the Chapter.

The idea of affiliating all professional bodies was introduced and on motion, duly made, seconded and carried, it was ordered

that the Post-War Committee consider the idea and report back to the Chapter, and that John L. Hall, Engineer, who is about to attend a National Convention of his profession, be notified of the Chapter's action, and that he be asked to present the subject to his organization for their consideration.

Meetings adjourned.

## Minutes of 248th meeting, SPECIAL MEETING, held

June 11, 1919, at 12 noon, at The Bon Marche Tea Room

Present: President Huntington, Albertson, Baeder, Bebb, Booth, Field, Gould, Knox, Loveless, Park, Schack, Siebrand, Wilson, Willatzen, Willcox.

Subject of the Meeting:

## APPOINTEES FOR STATE BOARD OF EXAMINERS

The President in opening the meeting stated that a conversation held this morning with Senator Wm. Wray indicated that the Governor, in making the appointments to the State Board of Examiners who are to administer the Architects' Registration Law, was ignoring altogether the Washington State Chapter. After some discussion, Mr. Willatzen moved that a delegation be sent to Olympia with power to act under instructions to herein-after given. Motion seconded and carried.

Mr. Willcox moved that the Executive Council be empowered to prepare a statement to be presented to the Governor by the delegation. Motion seconded and carried.

Mr. Willcox moved that the Chapter recommend the Head of the School of Architecture of the State University as the logical appointee if only one is to be had by the Chapter. Motion seconded and carried.

Mr. Bebb moved that the Chairman appoint a delegation of three and that these be joined by as many more volunteers as will go to wait on the Governor in person. Motion seconded and carried.

The Chairman appointed Messrs. Bebb, Baeder, and Willcox. Mr. Willcox declined to serve, Mr. Loveless was appointed.

Mr. Willcox moved the endorsement of the appointment of Messrs. Bebb, Loveless and Baeder. Motion seconded and carried.

Meeting adjourned.

NOTE.—No meetings have been held during June by the San Francisco, Southern California, or Oregon Chapters.

# The GARDEN

## OF CHIAROSCURO AND THE GARDEN

By ESTHER MATSON

IT MAY seem affected to talk of chiaroscuro in connection with gardening. But what after all does the formidable word mean but just the art of getting the best effects of light and shade? Surely in a garden we are bound to have lights and shadows, even as in life itself, whether or no. The question is, can we make them tell for an end of greater beauty? Can we not coax them to serve us now for sheer intensity of calm, anon for life and brilliance?

In Italy a certain quality of the atmosphere seems to pervade alike the wild and the cultivated scenes so that it is the rule rather than the exception for a garden to have a splendid disposition of sunshine and shadow. Nature herself is there the supreme mistress of this art and such painters as Titian and Veronese famed for getting chiaroscuro into their canvases are but her faithful transcribers.

In California the atmosphere has much of the same magic quality, and here too Nature shows herself particularly gracious, so that entrancing effects of light and shade seem to be accidental. Nevertheless, when it comes to making a garden (which try as we will, we cannot but be more or less artificial) it is quite possible, in California or elsewhere, to spoil it either by wrongly arranging the lights and shadows or more often still by totally ignoring them. There is no doubting that the garden artificer can grub away like a mole or he can come into an awareness of this art and take it into account both in the choice of his plants and in the placing of them.

He can make a mass of bamboos, for instance, immensely more effective if back of them he places some plants of heavier green. Or he may set a group of yuccas against evergreens—cypress, perhaps, or arbor vitae—in such wise that the contrast between the two kinds of plant and the wonder of the white bloom against the depth of foliage enhance the beauty of each. Again he may arrange his flowering borders so that the colors shall come in masses and as Miss Jekyll prefers in "drifts" instead of being spattered about like so many patches in the old-time crazy-quilt.

In the mere matter of foliage what materials are at hand for conjuring with! Consider the leafage of the locusts, for an example, and of the acacias, in comparison with that of the magnolia. Let the gardener mix these indiscriminately and we will all wonder why his place lacks character. Let him place them in interesting juxtaposition with one another and he will achieve satisfying and inspiring pictures.

Too many of us still think that the whole duty of a garden is to contain the greatest possible number and variety of flowers. We forget that the whole duty of it is to make for beauty. And one of the surest ways of making it beautiful is to have a care for its chiaroscuro. Have we not noticed indeed that conservatories are always fatiguing? If we stop to think about it we must grant that in them no such care has been taken. No, the conservatories, like the majority of nurseries, are mere places for collections of plants. But a garden should be something different and better.

Nature herself, if we will be on the lookout, will often give us delightful lessons in the art of chiaroscuro. See how she plays the camellia bloom off against the lustrous, dark foliage. Notice how in one tiny purple pansy bloom she lays on her streaks of gold pencilling never haphazardly, but always with evident design. See how she masses her laurel and rhododendron blossoms against the dense green shadows of their own foliage. Look at ferns in their "native haunt" and note what great spaces of gloom alternate with what lightsome groups of fronds.

The old Italians, those past masters in the art of gardenage, were not above taking lessons of Nature. And well they learned the value of chiaroscuro. Till at length with supreme mastery

of their technique they were able to lay out their grounds so as to gain the utmost advantage from the balance of lights and shades. They even found it possible to play with this alternating sunshine and shadow as a musician plays with the now swelling or full capacity, and now pianissimo, of his instrument. In such wise they brought it about that certain portions of the gardens would induce certain moods in those who walked and talked in them. Yes, they were canny in a way which we moderns have quite overlooked, were those old gardeners. And as we come more and more to desire to "garden finely," we are bound to give a thought to these things. We are going to wish for gardens planned so that they will yield us not mere tunes, or melodies, but harmonies.

One woman in California, Mrs. Minna Sherman, not long since, did some thinking along this line in connection with her garden at Fresno. Although undoubtedly the climate and the situation of a plot of ground must first of all be taken into account, there is none the less a deal of suggestiveness in what she wrote about her own experiment.

"In laying out a new garden," said she, "...the direction in which the lights and shadows fall should be as much considered as in the lighting of a picture. The fullest beauty of light and shade is obtained if the structural lines of planting are laid east and west. The rising sun, until it reaches the Meridian, throws long shadows and if the garden groups are well planted they show their perfection of colors and shapes through the misty morning light, and as the sun gains strength the new tints of color and greater definitions of form give added beauty to the garden. The early morning air is nimble with glad quaint fancies when all is at its best in the morning freshness. The same east and west garden is glorified by the golden sunset and the lingering afterglow falls in subdued harmony over the trees and shrubs. It is really two gardens in one."

Planning the lights and shadows as in the lighting of a picture—there we have the crux of the matter. The amateur fumbles and struggles over first one detail and then another. The master sweeps his brush across the canvas in broad swathes, saying: "Here will be my darks, here will be my lights," apparently ignoring altogether the details. But well does he, the master, know that he can rely on those details to take care of themselves later on, that it is indeed these very masses of light and shade that are going to throw the details up, are going to give them depth and character.

No matter what part of the country we live in, then, Mrs. Sherman's idea is one to make us pause, and indeed the subject of *chiaro-oscuro* is well worth pondering on.

### BUD VARIATIONS IN DAHLIAS

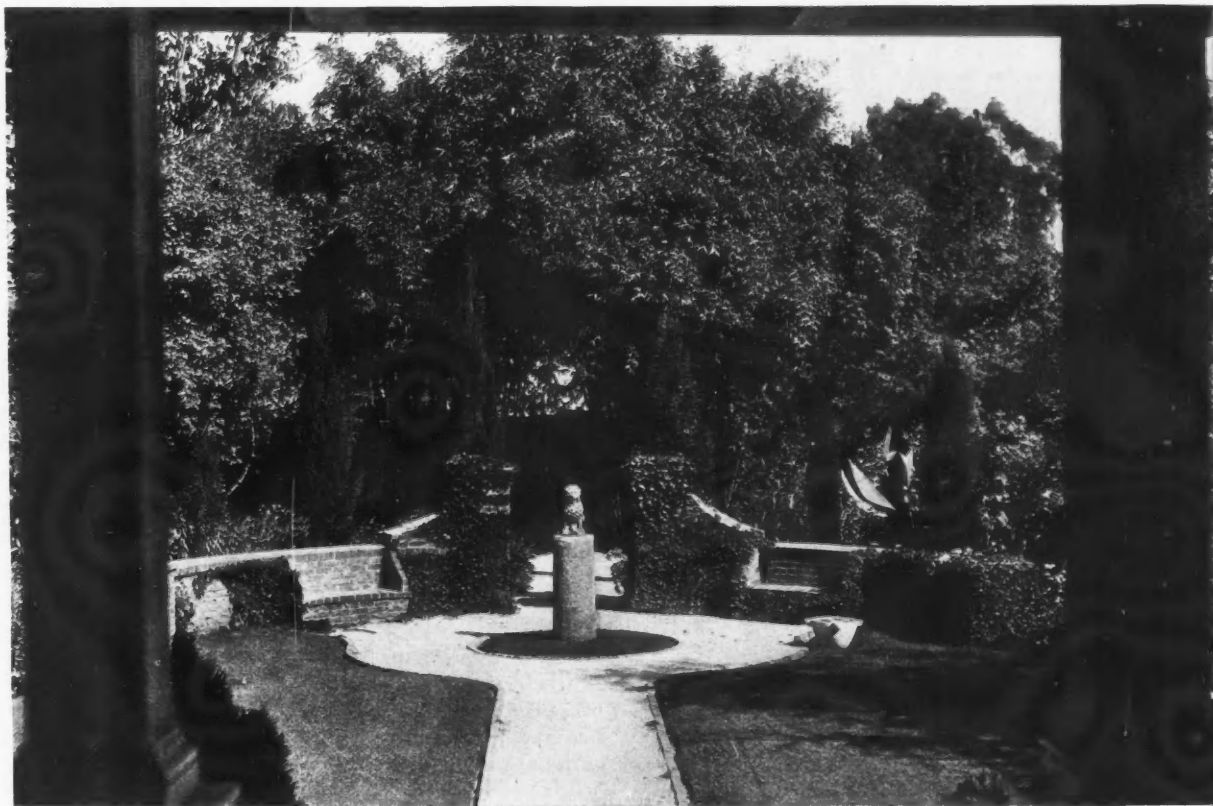
By  
PROFESSOR J. W. GREGG  
University of California

Now that the season for dahlias is again with us, the growers will not only be concerned with the number and quality of blooms produced but will in addition endeavor in many cases to bring forth new varieties. In this connection it might be well to call to the attention of dahlia growers in general the fact that, in the past, not all of the new creations have originated from seedlings, in spite of the rather general assumption that such has been the case. In looking back carefully over the history of dahlia varieties, it is very clearly brought out that bud variation has been responsible for the origin of many of the valuable ones.

THE BUILDING REVIEW



AN INFORMAL GARDEN



A FORMAL GARDEN  
CHIAROSCURO IN THE GARDEN



## EDITORIAL

FOR some two years our efforts and enthusiasm were enlisted in the task of aiding the realization of a great dream—the Panama-Pacific International Exposition it was officially designated, but to Westerners it will always be known more briefly but more affectionately as “the Exposition.” Daily we followed the piling up of structure, the finishing of plaster walls and of ornamental detail, the laying out of gardens and their decorative accessories. Throughout the ten months of its existence as an almost autonomous entity we passed unnumbered hours strolling along its avenues and loitering in the shelter of its courts. The end at last came, and on the day following the closing we made another pilgrimage about the grounds. Courses designed for throngs of people were deserted, papers and debris lay uncollected over the walks and gardens, fountains were without the life of water, pools and basins were half empty as the result of unreplenished leakage—on all sides, in fact, a sense of impending dissolution was prevalent. Workmen were even demolishing the lighter decorative parts of doorways which obstructed egress from the great buildings. It may well be understood that so long and intimate an association with the work both during its growth and after its completion had instilled in us a sincere affection. From that day on, during and after the period of demolition, we avoided visiting or even approaching the scene of memories so numerous and so cherished. Exhibitions drew us now and again to the Palace of Fine Arts. On those occasions we consistently turned our gaze into the colonnade; yet for all that there was no escaping the sense of acres of level and vacant building lots beyond the lagoon, where should have arisen the walls and domes of majestic palaces. The great structure stood like a solitary line rescued from the wreck of the work of some antique poet, tantalizingly beautiful as a fragment, yet after all essentially unintelligible dis severed from its perished context.

Chance recently recalled us to this barren site of vanished beauty. To stroll along the vacant and deserted Marina was to conjure up visions of compositions whose every trace has now been obliterated. We mused and indulged a vain regret. But judge of the start with which we stumbled upon a scattered pile of actual fragments of architectural ornament and sculptured accessories from the real Exposition! How had these few pieces chanced to escape the general destruction? Why had they been thus strewn and abandoned in the open? Surely destruction would have been more kindly. There they lay—urns, lamp standards, lanterns, capitals, finials, ornamented archivolts, sculptured figures—all courts, all styles, pell-mell and haphazard among the weeds. Neither their unceremonious dumping nor the elements of three subsequent winters had inflicted conspicuous injury. With what fond regret we reviewed these forgotten fragments, even handled pieces we had ourselves drawn and detailed and followed through the modeling shop and to their places on the buildings! How poignant to reflect that these few remaining fragments of the Exposition's actual buildings

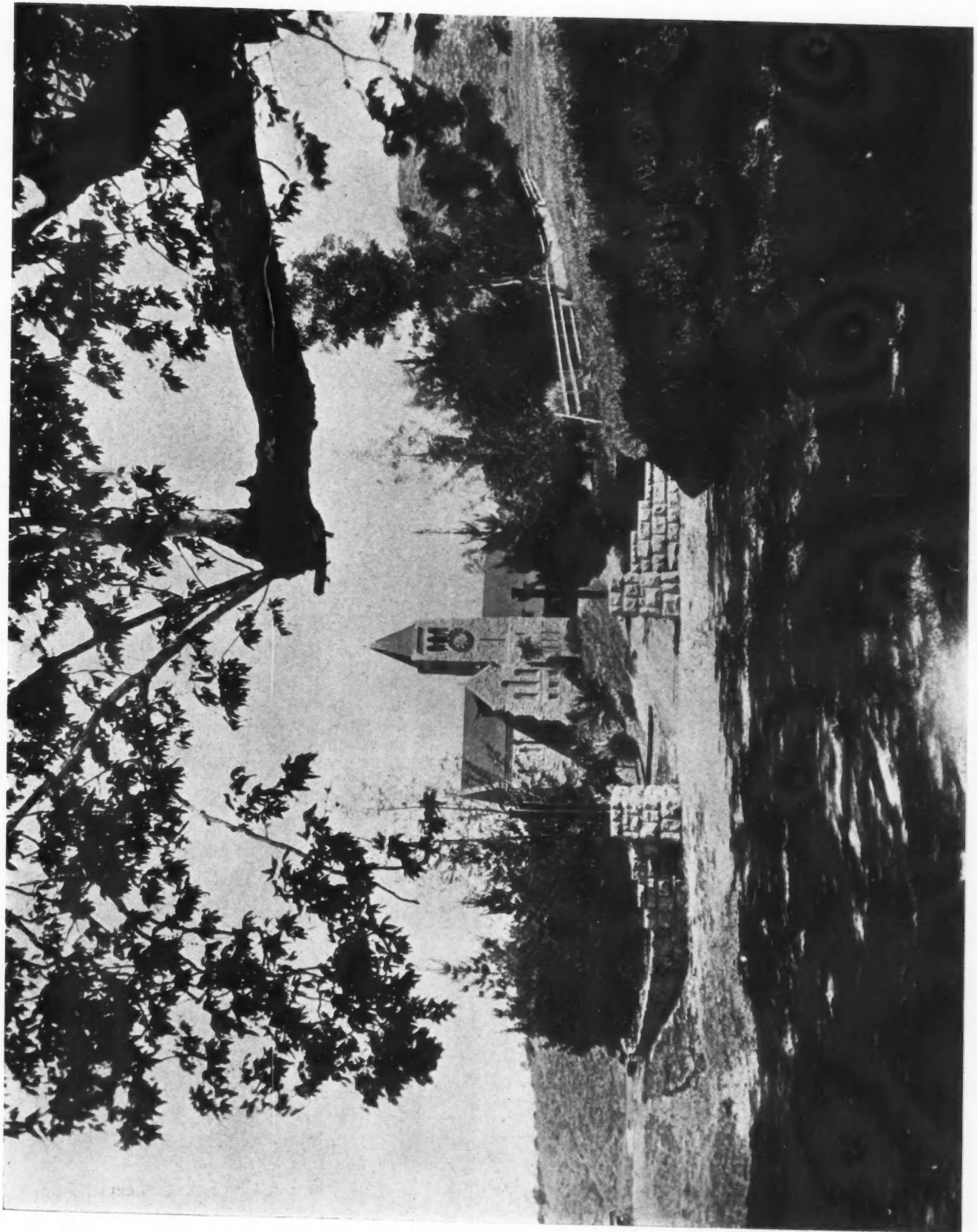
constitute a dump heap! Imagine one's feeling on coming upon a desecrated cemetery where lie one's own kin!

The San Francisco Exposition represented the concurrence of many of our ablest minds in the creation of a thing of beauty. Into one harmonious whole it gathered the most varied architectural expressions, some of them examples of well known types, others achievements of notable originality. The pure classical and high renaissance traditions found expression in the Machinery Building, in the Court of Four Seasons, and in the colonnades of the Courts of the Universe. The monumental tradition, handled with varying degrees of freedom and fancy, appeared in the Tower of Jewels, the Palace of Fine Arts, and the triumphal arches of the Court of the Universe. The lighter phases of the renaissance were exemplified in the Court of Palms and the Court of Flowers, which were in the Italian vein; and in the building entrances on the perimeter walls of the main group, which were Spanish plateresque. The more modern French feeling was also represented, conventionally in Festival Hall, with more independence in the Horticultural Building. An originality which defied historical classification appeared in the Court of the Ages, or Court of Abundance. Here was an enormous body of architecture, truly monumental in scale, the poorest of it adequate and competent, the best of it consummately handled; the mechanical execution was almost uniformly excellent. In addition to these major units there were numerous smaller buildings, fountains, sculpture, and garden accessories. In the nature of the case it was an impossibility to preserve intact this vast composition. We should be duly thankful for the mural paintings which remained to adorn some of our public buildings, for the great municipal organ, for the legacy of a permanent fine arts museum, and for the insight given the public into the real meaning and possibilities of monumental planning and design. Perhaps we should consider this abundant salvage. Yet we might so easily have had just a little more.

At the time of the Exposition's close the following idea was proposed; that as the work of demolition proceeded, one example of every significant detail of architectural decoration and sculpture be preserved and set aside, and that the resulting fragments be gathered into a collection and reinforced with the available drawings and photographs of the entire composition. Unfortunately this suggestion was never acted upon. Had such a course been adopted, we should have possessed, at an expenditure truly inconsequential, a complete and authentic record of the aims and the achievements of the group of our foremost architects which was responsible for one of our greatest architectural events. The intrinsic value of the available material was beyond question. Such a museum, properly organized and conducted, would have amply justified itself from the historical as well as from the educational point of view.

The heap of fragments slowly disintegrating by the deserted Marina is a touching reminder of an opportunity lost.—I. F. M.

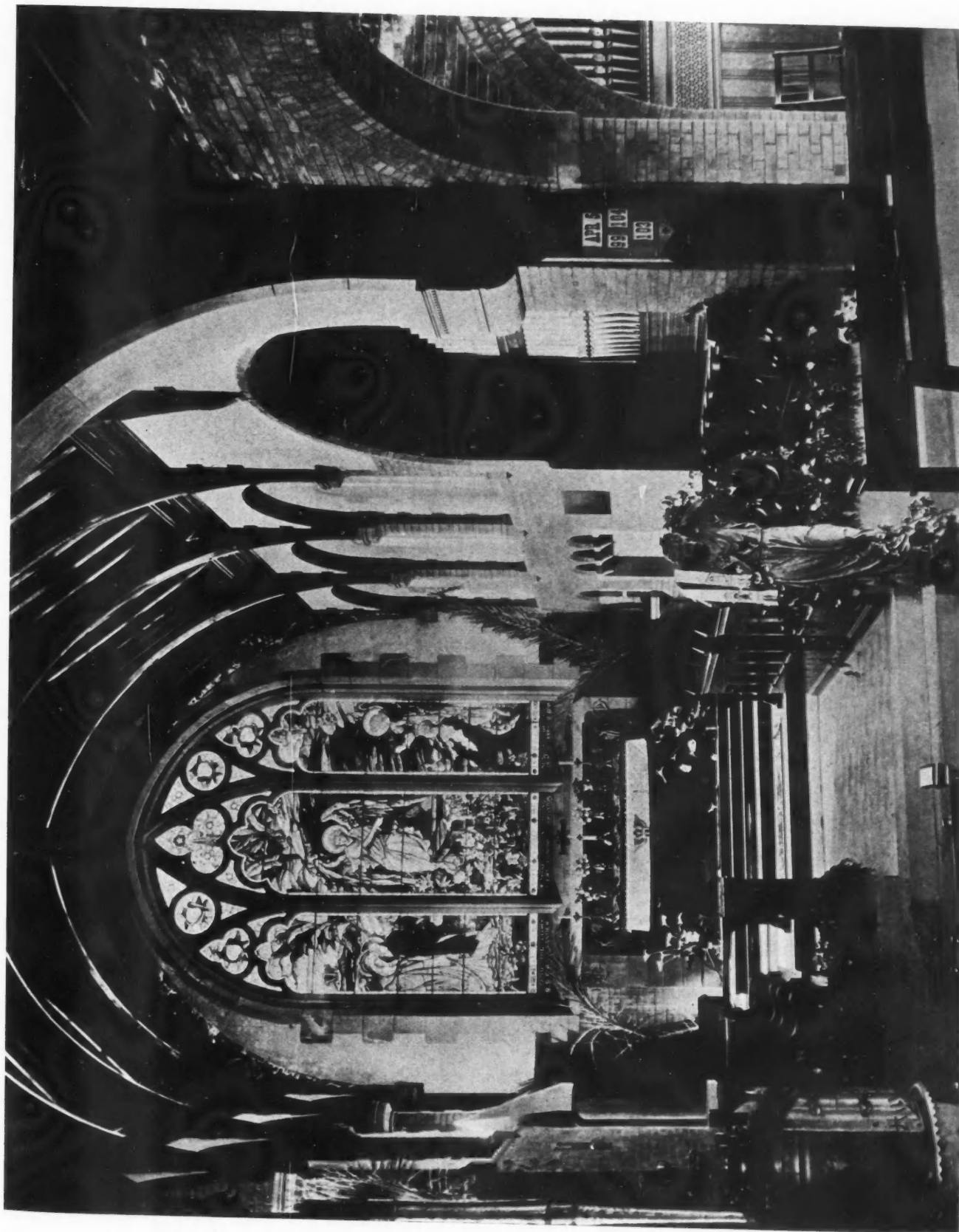




GENERAL VIEW  
CHURCH OF THE ANGELS, GARVANZA, CALIFORNIA  
COXHEAD & COXHEAD, Architects



EXTERIOR  
CHURCH OF THE ANGELS, GARVANZA, CALIFORNIA  
COXHEAD & COXHEAD, Architects



INTERIOR  
CHURCH OF THE ANGELS, GARVANZA, CALIFORNIA  
COXHEAD & COXHEAD, Architects

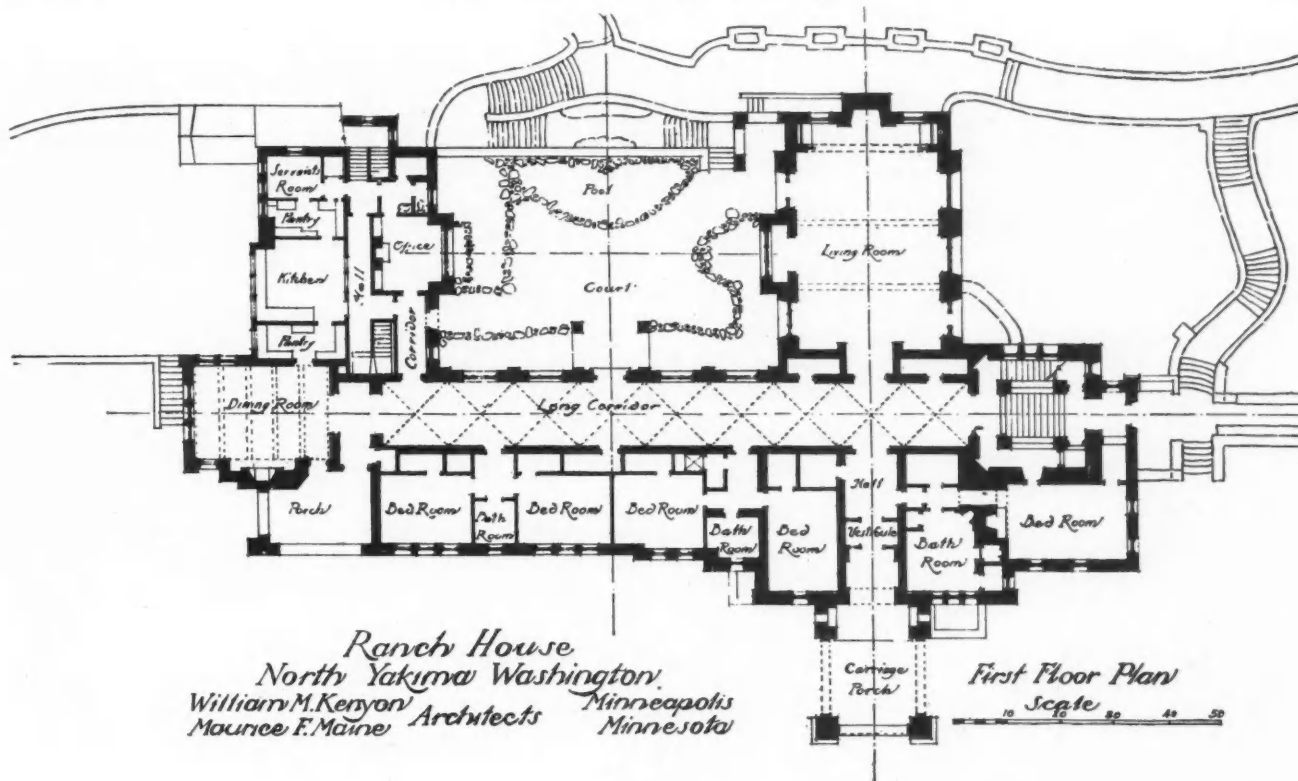




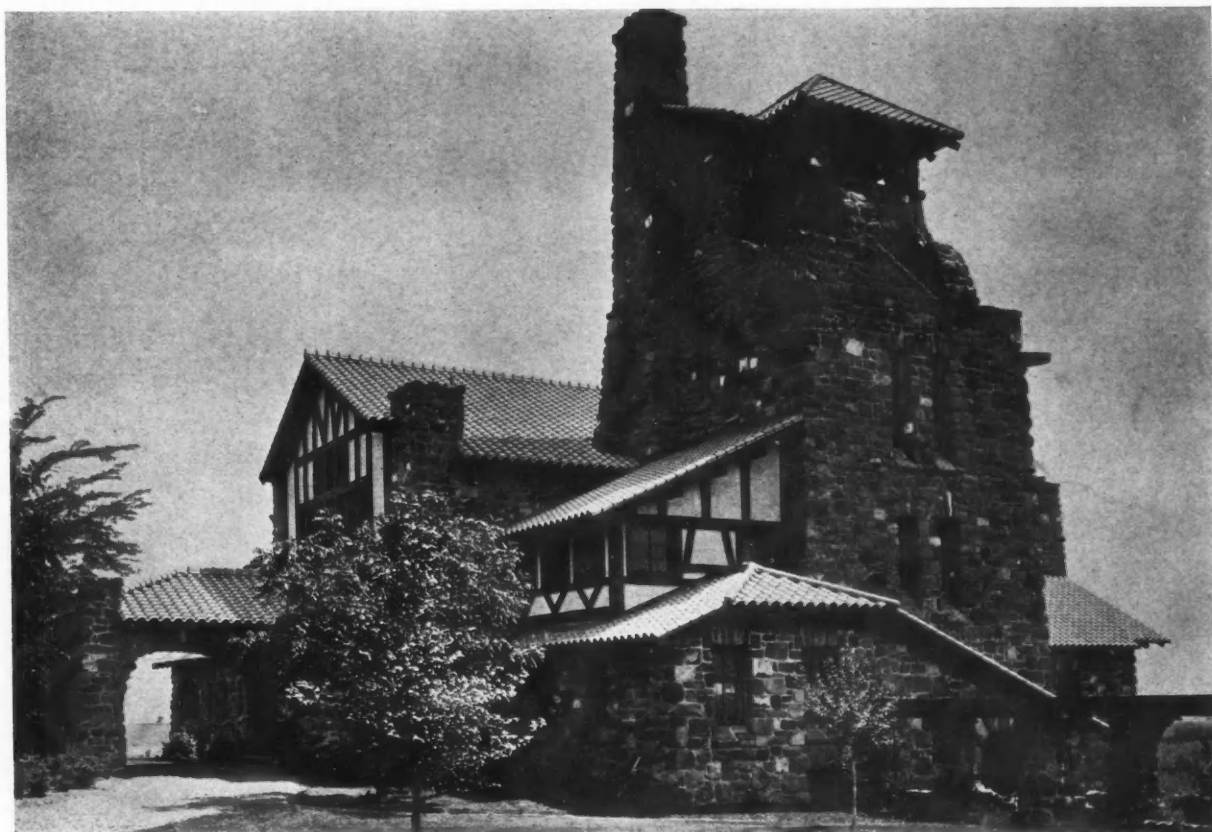
GENERAL VIEW



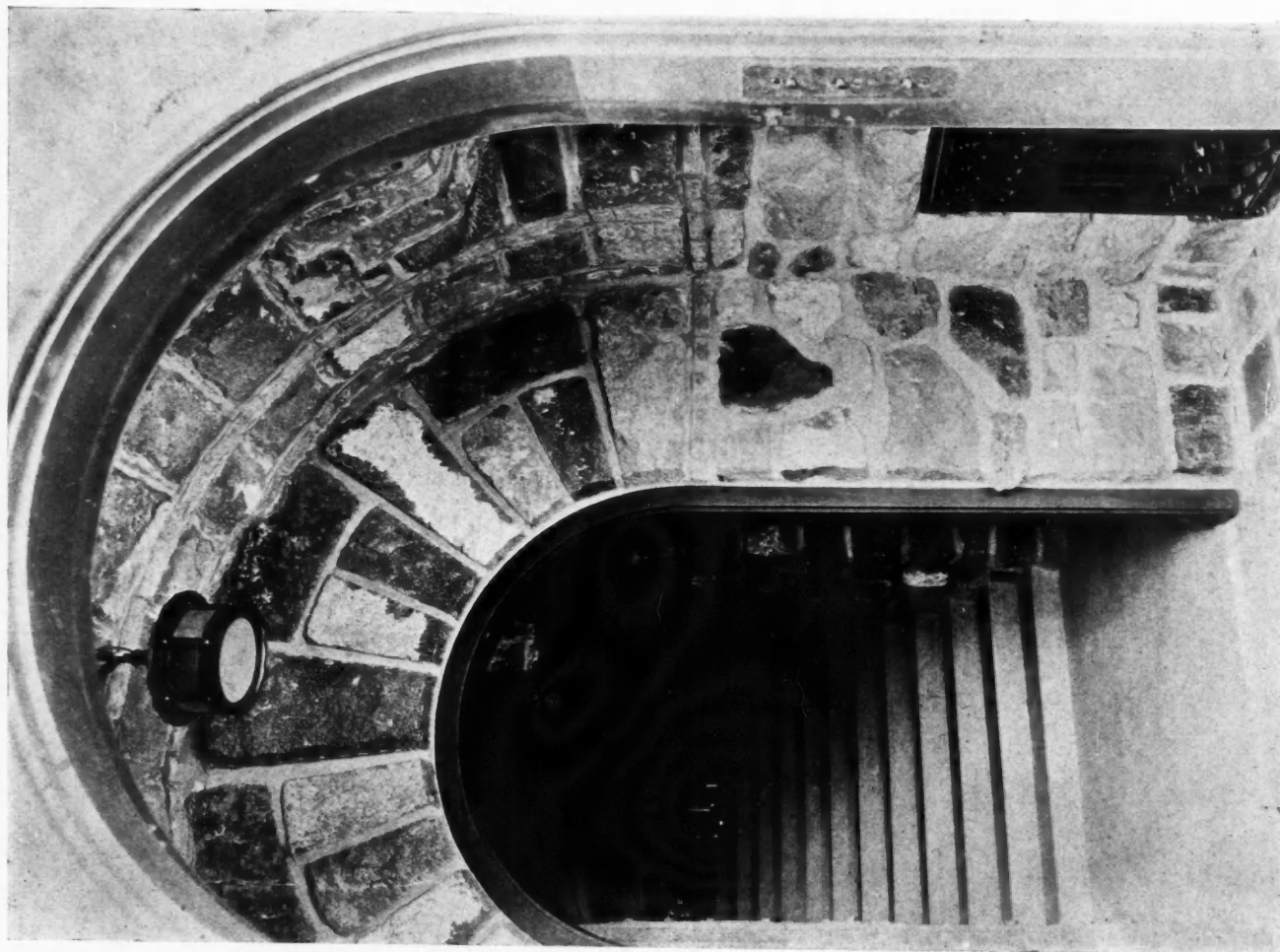
VIEW FROM LOWER LEVEL  
RANCH HOUSE, YAKIMA, WASHINGTON  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects



PLAN

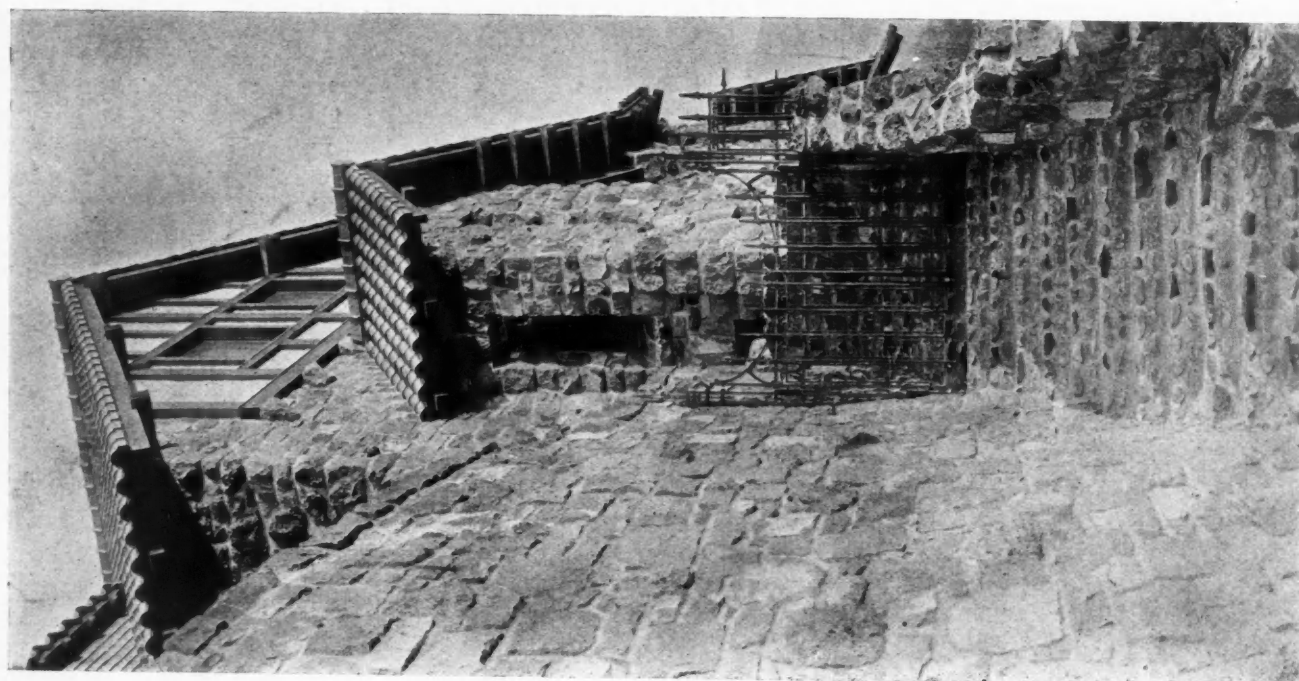


TOWER END FROM UPPER LEVEL  
 RANCH HOUSE, YAKIMA, WASHINGTON  
 WILLIAM M. KENYON, MAURICE F. MAINE, Architects



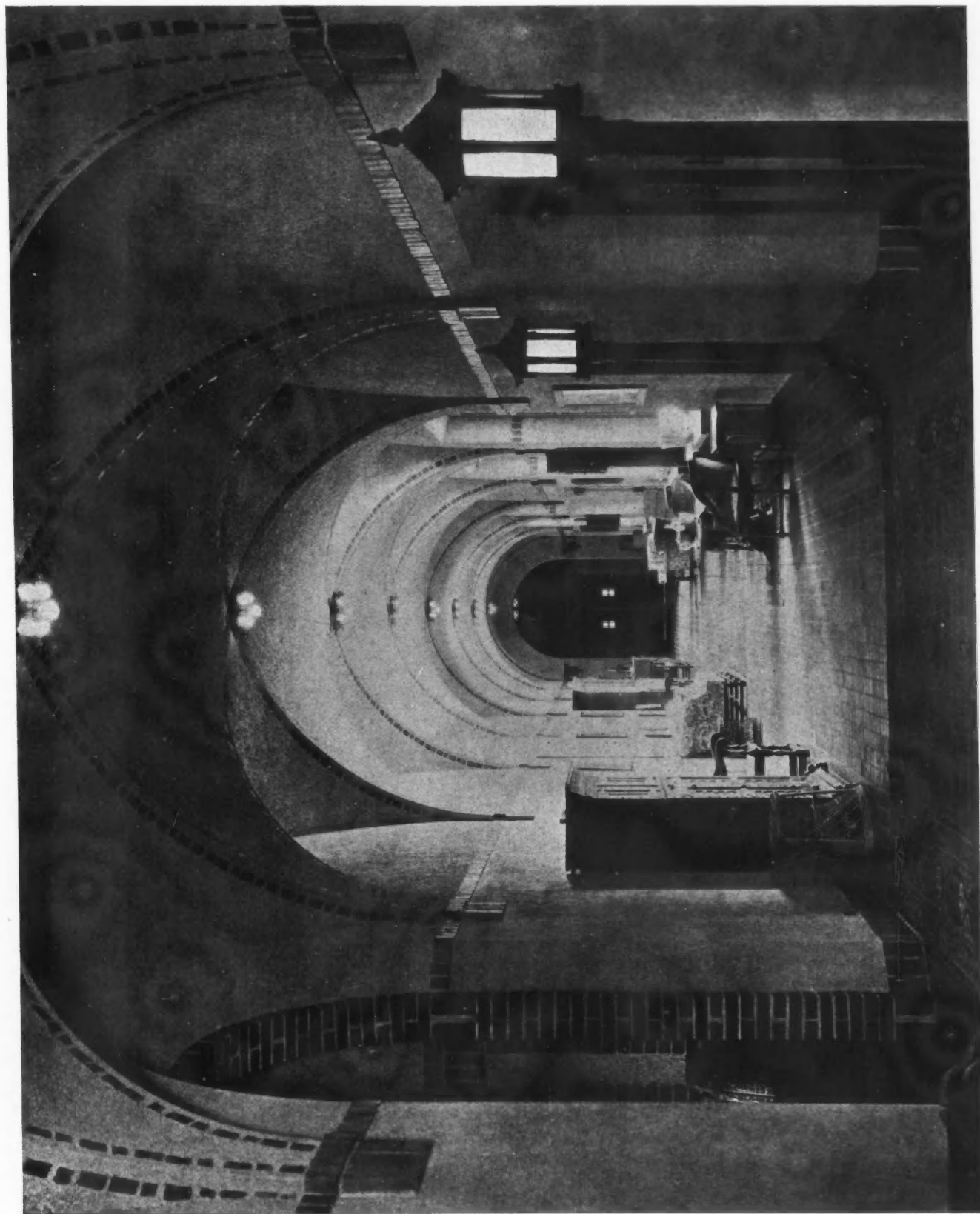
TOWER VESTIBULE

RANCH HOUSE, YAKIMA, WASHINGTON  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects

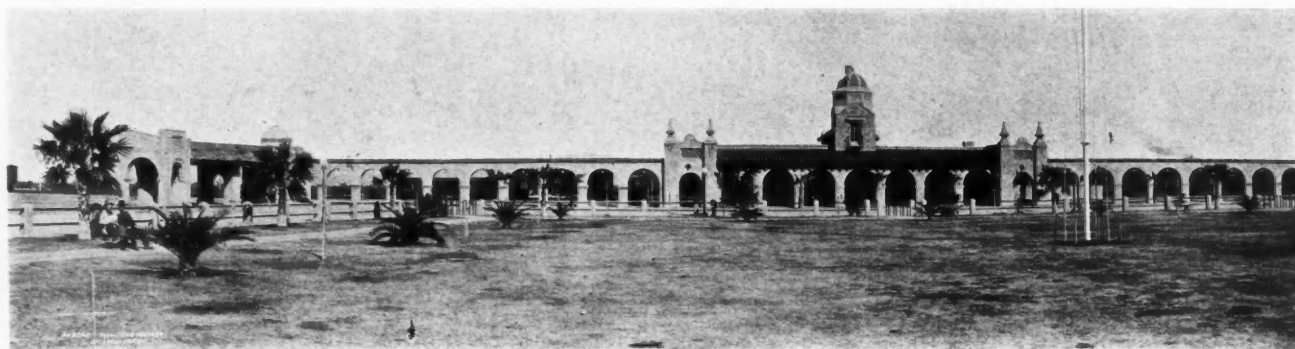


GARDEN STEPS

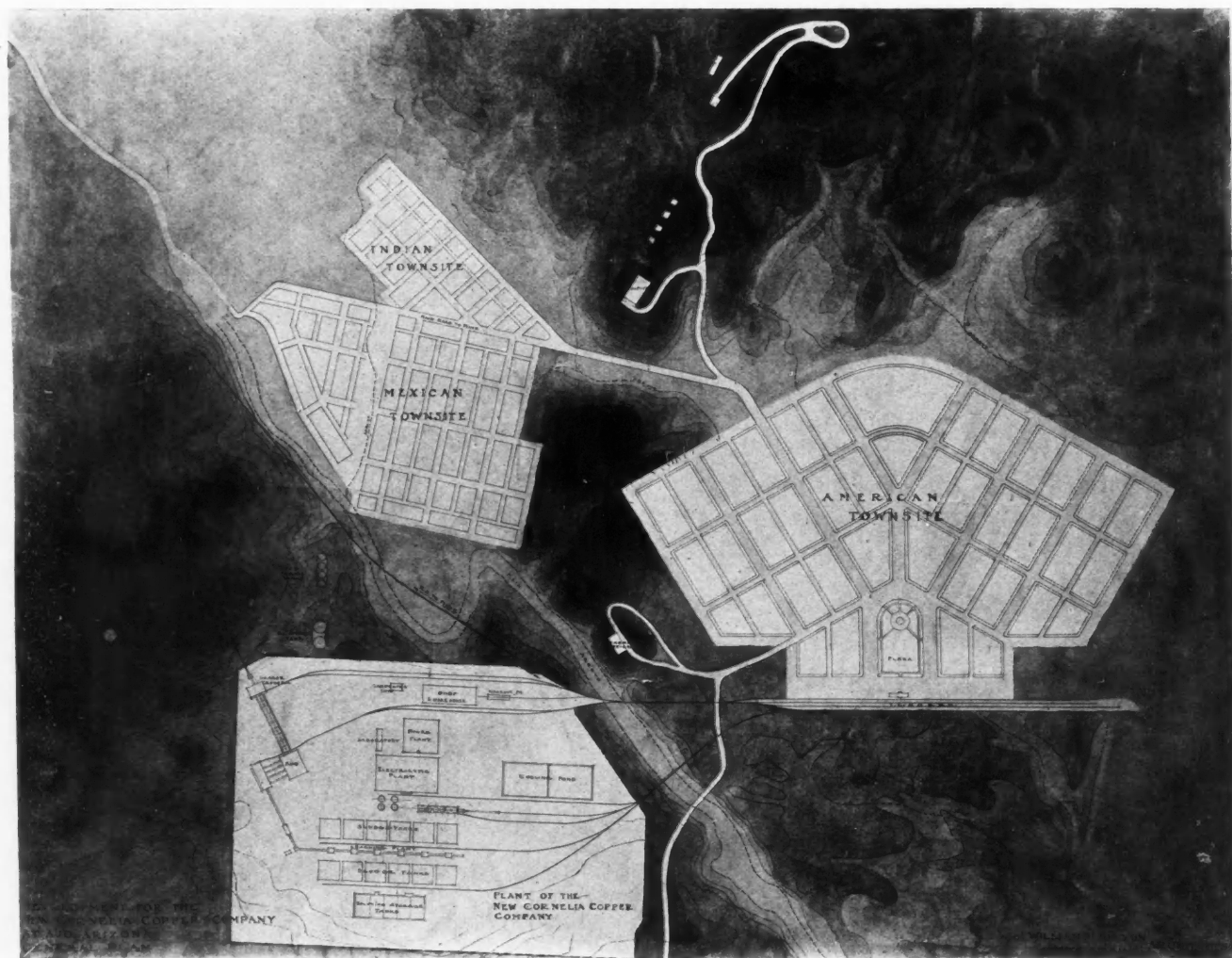




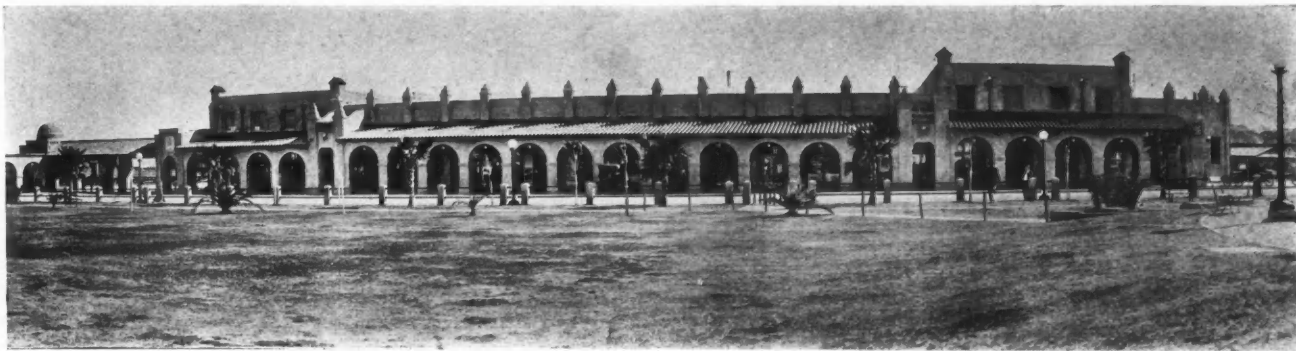
LONG CORRIDOR LOOKING TOWARD DINING ROOM  
RANCH HOUSE, YAKIMA, WASHINGTON  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects



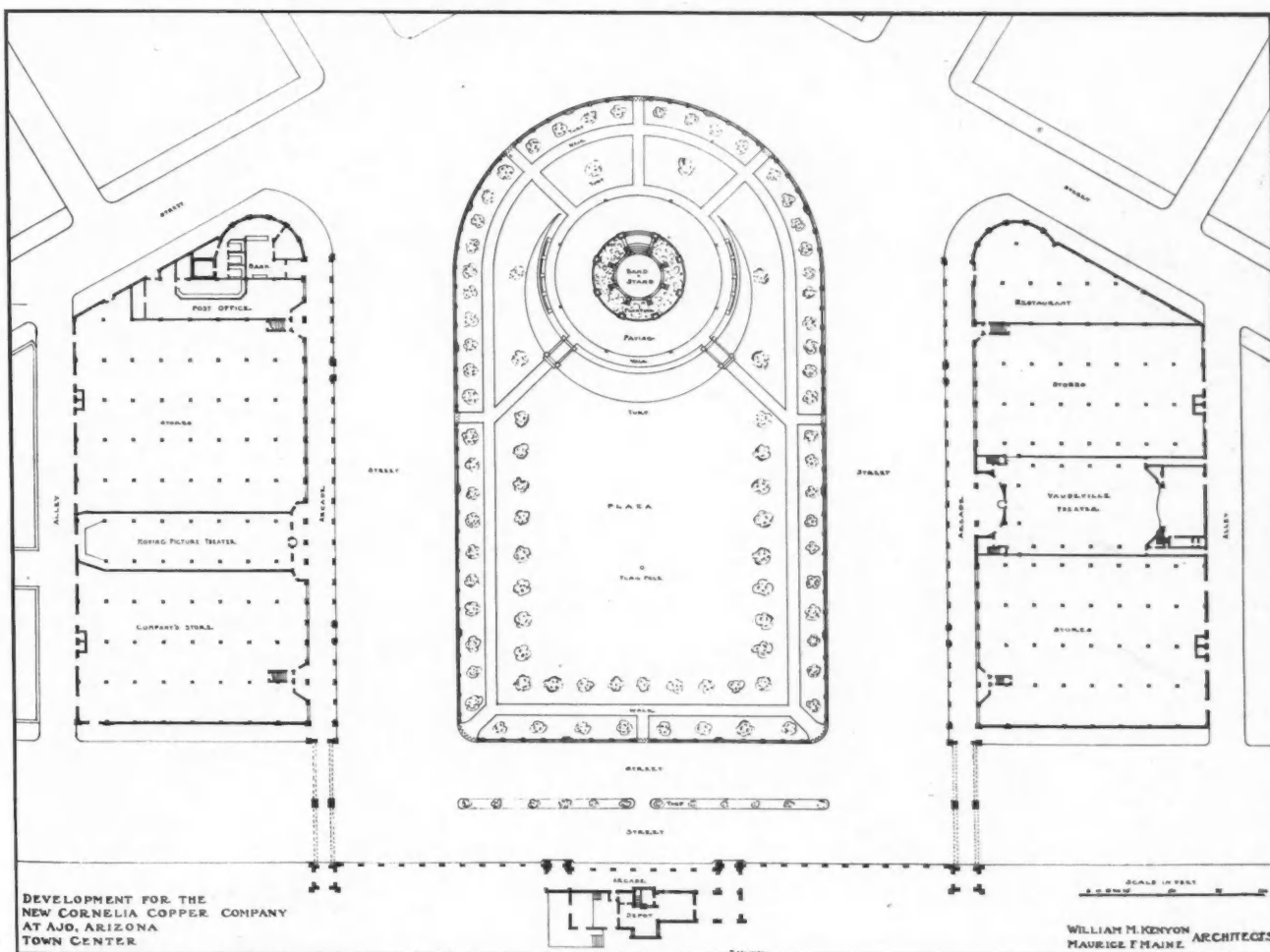
RAILROAD STATION AND PLAZA



GENERAL PLAN  
TOWN SITE, NEW CORNELIA COPPER COMPANY, AJO, ARIZONA  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects



STORES ON PLAZA



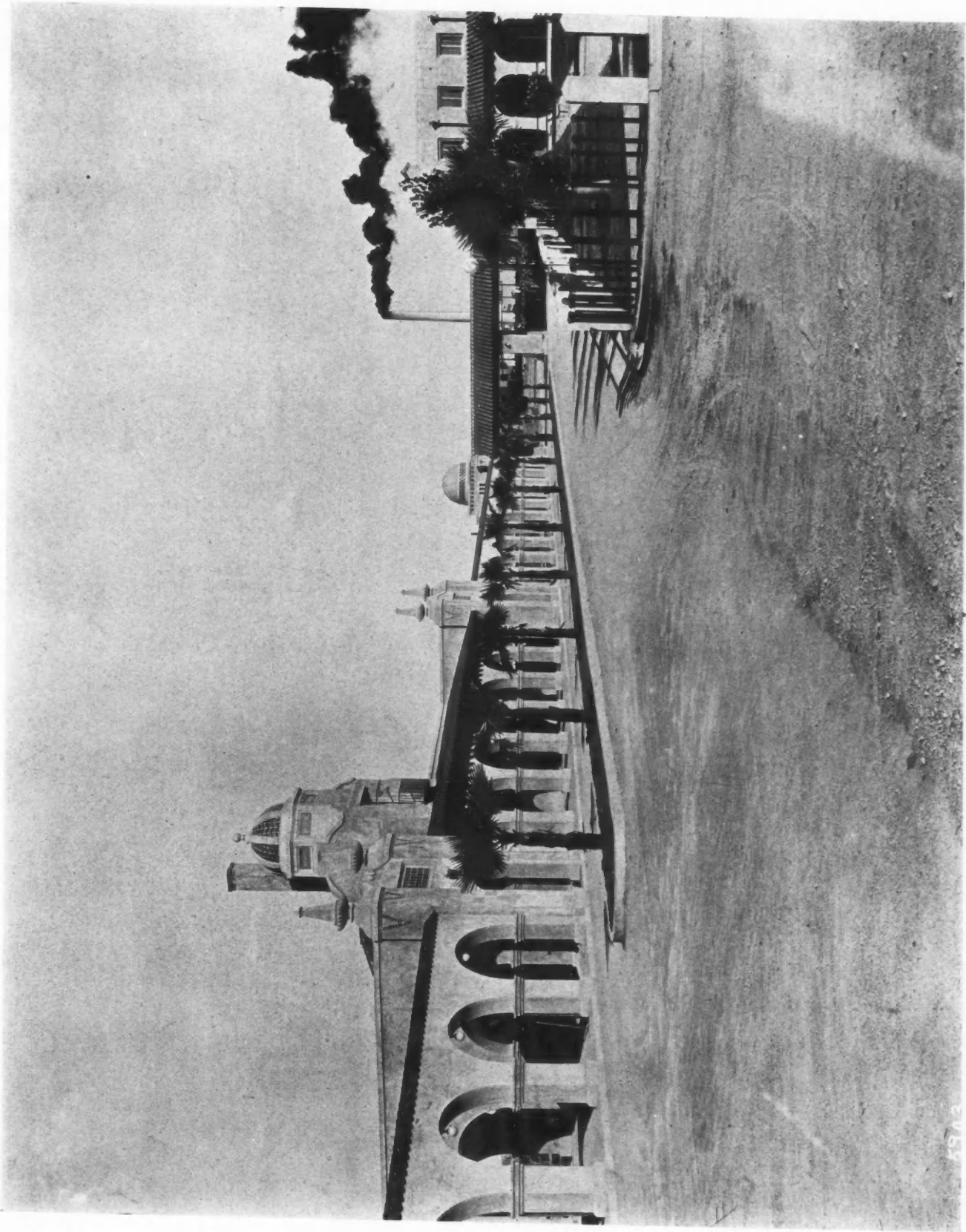
PLAN OF TOWN CENTER  
TOWN SITE, NEW CORNELIA COPPER COMPANY, AJO, ARIZONA  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects





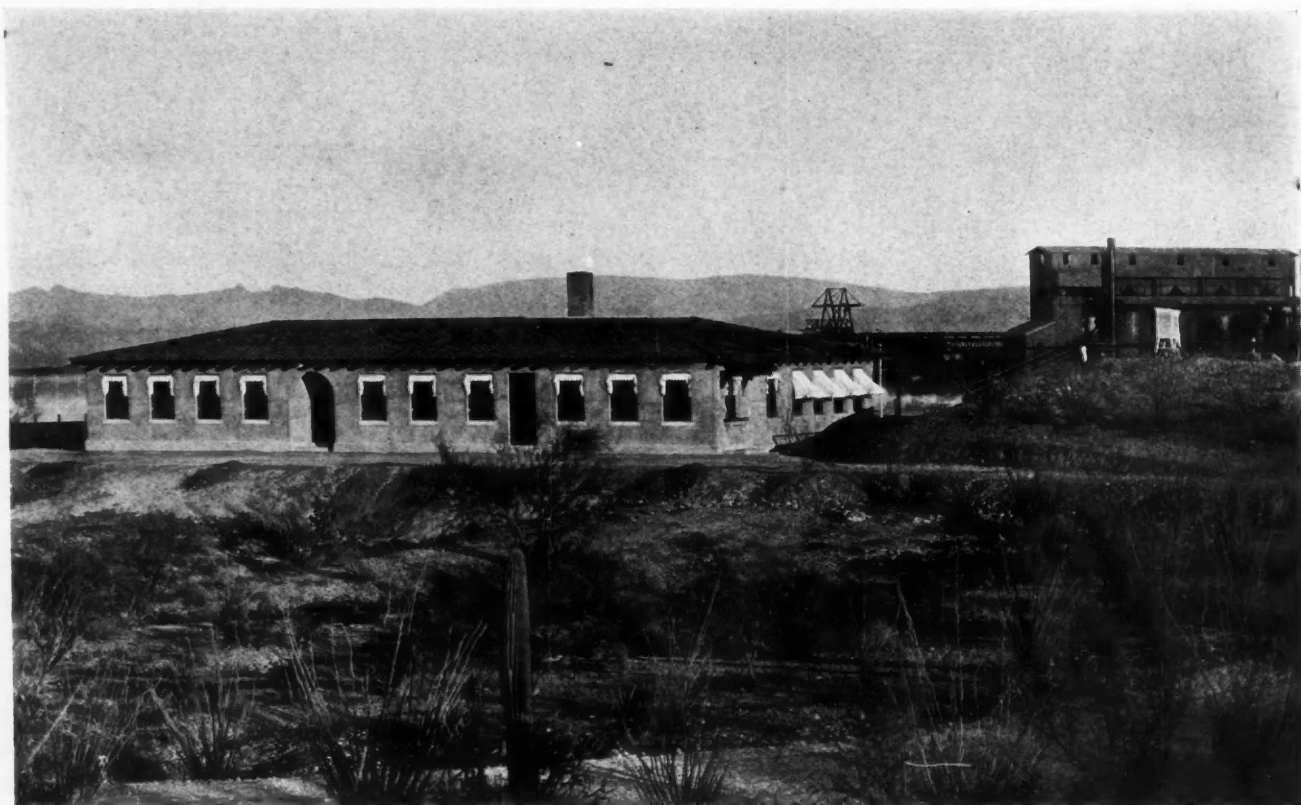
5530

RAILROAD STATION  
TOWN SITE, NEW CORNELIA COPPER COMPANY, AJO, ARIZONA  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects



RAILROAD STATION AND PLAZA  
TOWN SITE, NEW CORNELIA COPPER COMPANY, AJO, ARIZONA  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects

TOWN SITE, NEW CORNELIA COPPER COMPANY, AJO, ARIZONA  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects

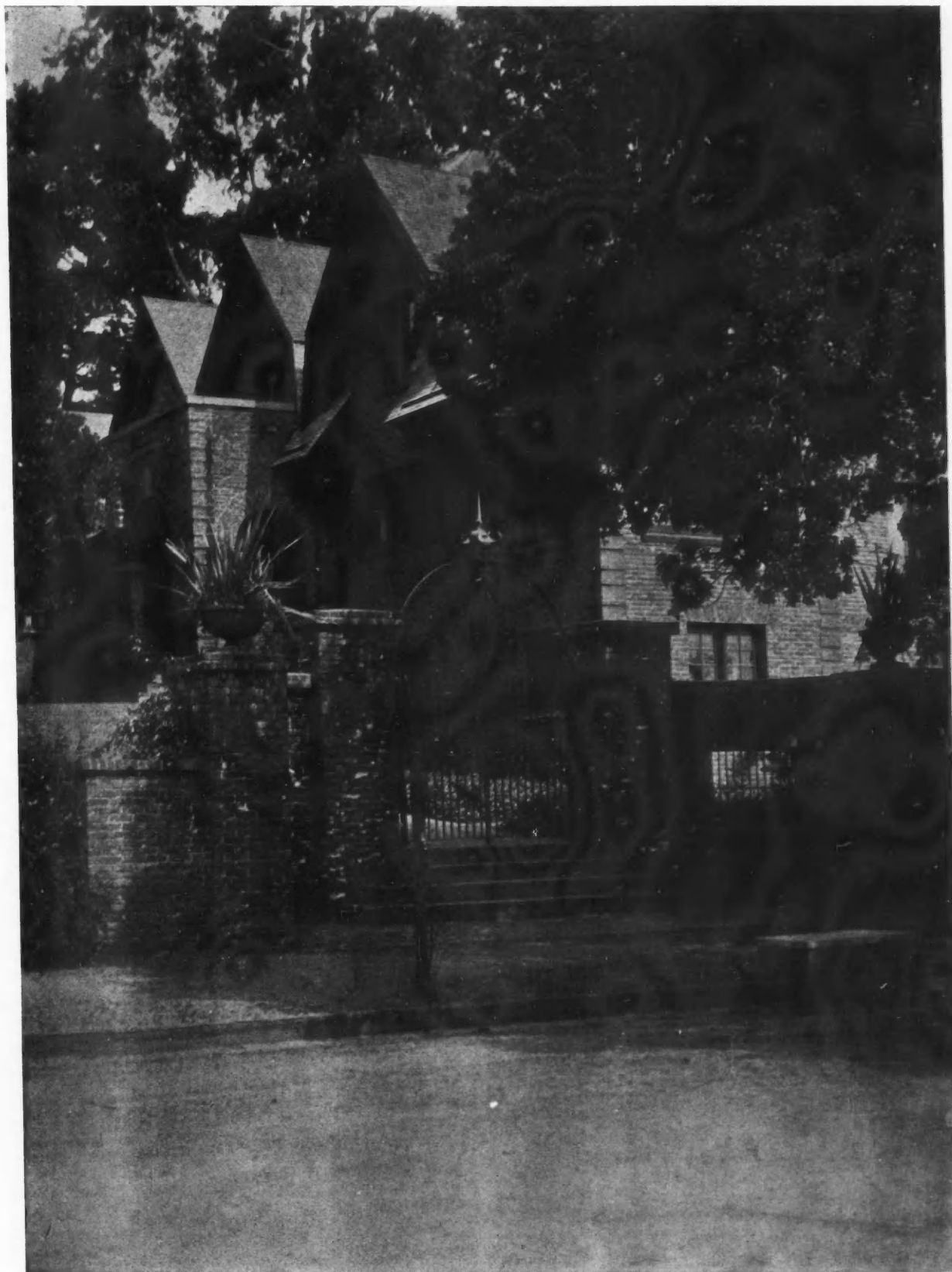


GENERAL OFFICE BUILDING



HOSPITAL AND AMERICAN HOUSES  
TOWN SITE, NEW CORNELIA COPPER COMPANY, AJO, ARIZONA  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects

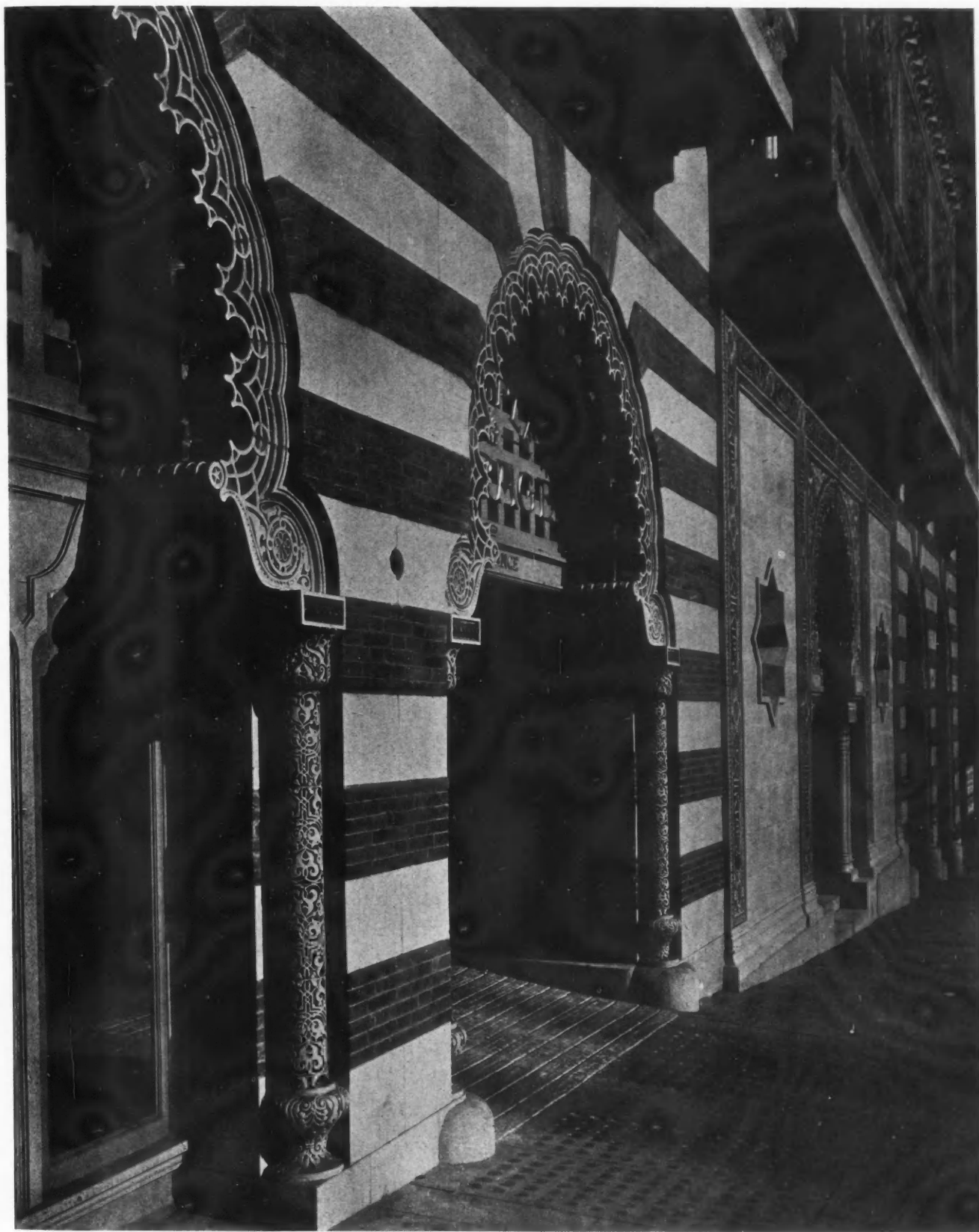




RESIDENCE OF A. G. FREEMAN, BERKELEY, CALIFORNIA  
COXHEAD & COXHEAD, Architects

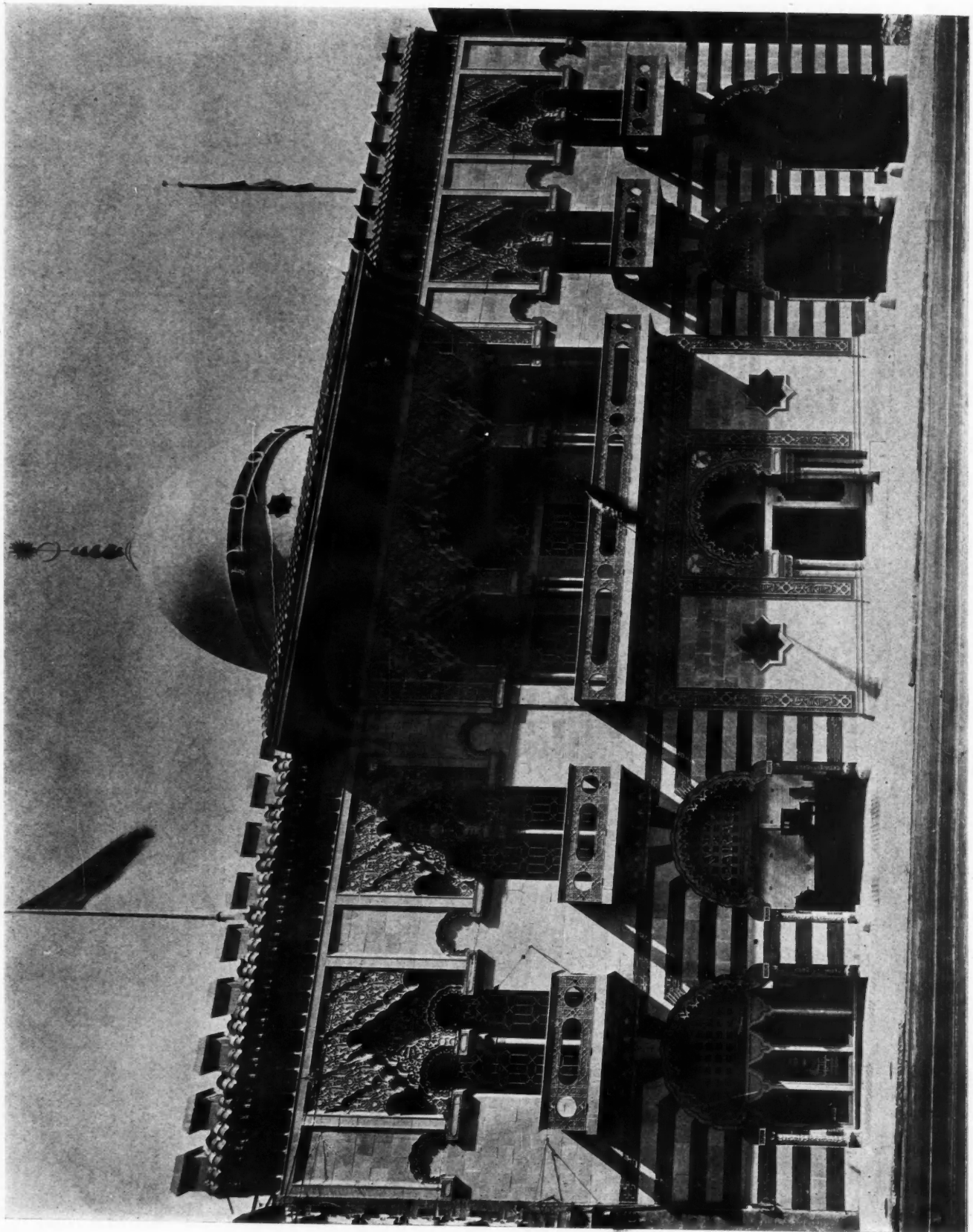


ENTRANCE  
ISLAM TEMPLE, SAN FRANCISCO  
T. PATERSON ROSS, Architect



DETAIL OF FACADE  
ISLAM TEMPLE, SAN FRANCISCO  
T. PATERSON ROSS, Architect





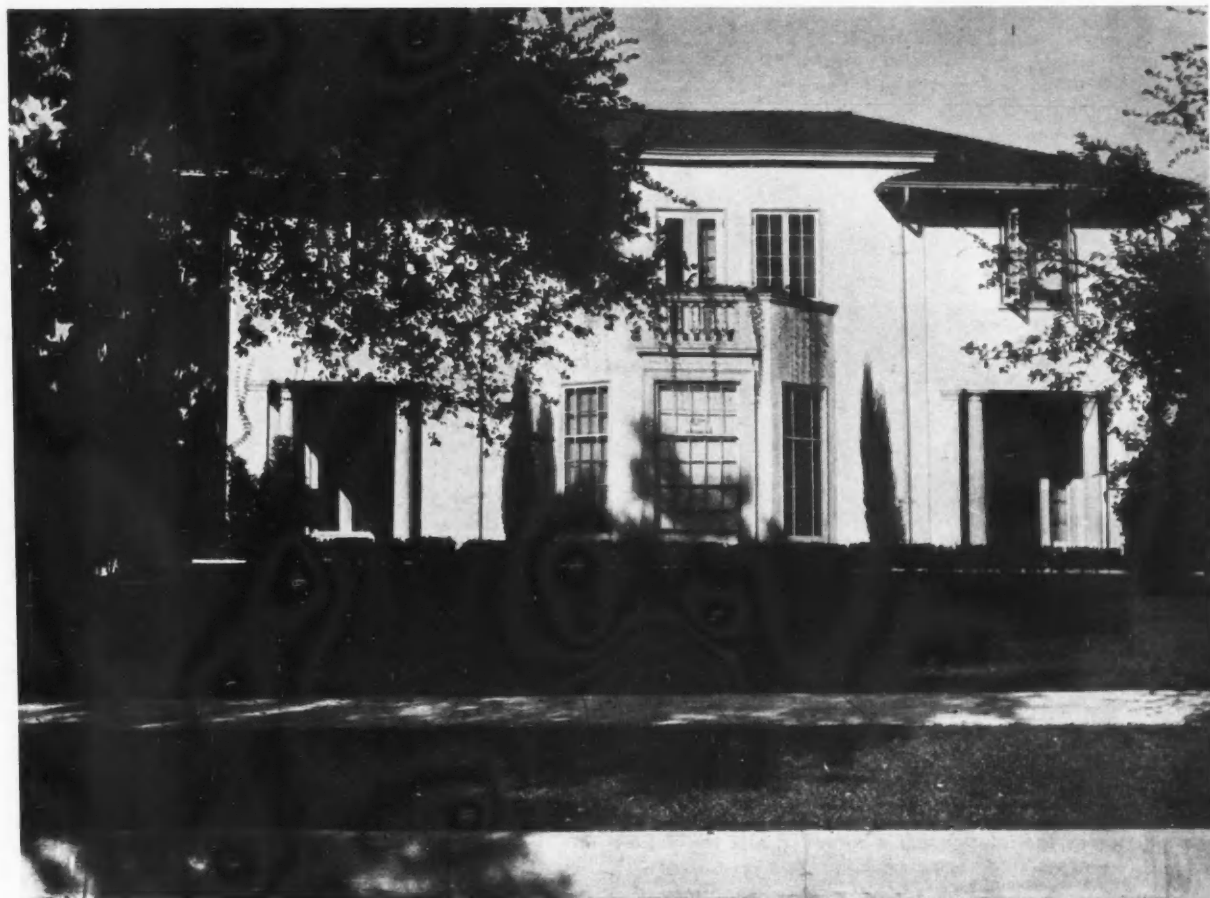
GENERAL VIEW  
ISLAM TEMPLE, SAN FRANCISCO  
T. PATTERSON ROSS, Architect

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# *The* HOME BUILDER

## THE EYES OF THE HOUSE

By HARRIS ALLEN



A.—THE CHARMING COMPOSITION IS NOTEWORTHY FOR EFFECTIVE GROUPING OF OPENINGS AND FOR CONSISTENCY IN LINE WITHOUT EXTREME FORMALITY OR STIFFNESS

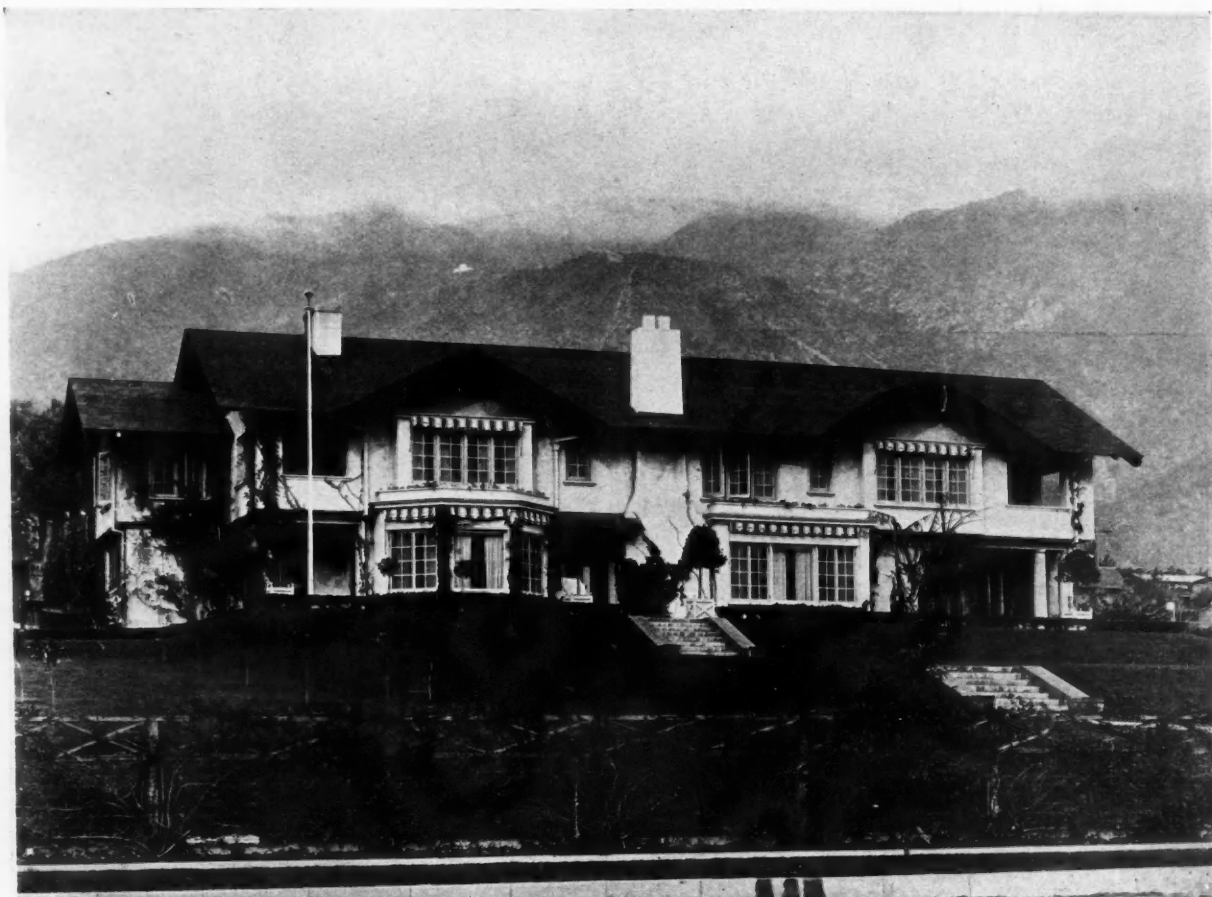
EYES were made for seeing, and beauty is its own excuse for being; but eyes were also made to be seen. In the architectural lineaments, the facade, of a house, the windows not only function as eyes but they also express the character and, in fact, the racial characteristics of the building.

With the technical principles of fenestration the layman need not concern himself. If, however, he recognizes and appreciates the effects produced by the proper distribution of voids and openings, the chances of constructing good and avoiding poor design are greatly increased, and both the public and the individual profit thereby.

This proportionate arrangement of windows in wall, varies with the architectural style, and of course is governed primarily by specific requirements of use, exposure, and climate. The various architectural styles were developed to meet the same needs, each in its own particular location. One of the great obstacles to the satisfactory development of American cities

architecturally, is the fact that most owners insist upon using a style they have seen and admired elsewhere, regardless of its unsuitability to site and climatic conditions, or to the architectural discord it introduces among existing buildings. But that is another story.

To return to the window, the treatment must show a logical consideration of the necessity and comfort of the family, or, no matter how beautiful the building, it will be open to criticism, and cannot be considered a success. In most cases this is clearly indicated by the exterior; it is the exception which proves the rule when a building is fully adequate to all practical and aesthetic requirements, but gives the opposite impression to the outside view. On the other hand, there are many buildings which are fair to look upon, but uncomfortable to live in. That is the unnecessary misfortune of the individual, but merely goes to show that complete success is made up of many details, none of which can be neglected with impunity. Of course no one would be silly



B.—THE LONG HORIZONTAL LINES WHICH GIVE CHARACTER TO THE HOUSE ARE ACCENTED BY SILLS, HEADS AND MUNTINS OF THE WINDOW GROUPS AND BY OVERHANGING SECOND STORY

enough to say that a building must be ugly to be comfortable; yet sometimes one is bound to believe that idea must have prevailed.

The practical uses of the windows, however, can be completely fulfilled without entailing any sacrifice to design, always providing an owner is not hide-bound as to architectural style. In that case either the exterior or the interior is apt to suffer, and the unfor-

tunate architect receives the blame for inadequacy of lighting or an inconsistent and ill-proportioned design.

The accompanying illustrations have been chosen as good representatives of different architectural styles, in which the window placing is consistent and harmonious, and as nearly as may be determined fulfills the requirements of location and climate.

Exhibit A is a simple but charmingly balanced composition, with the classic suggestion of the smaller Italian villas. It has a somewhat formal feeling, with both horizontal and vertical lines emphasized; but this is kept from stiffness by the interesting grouping of windows over bay and loggias, and in the bay itself. The indications by the foliage and shadows of a warm sunny climate are repeated in the large wall surfaces, the overhanging eaves, the loggias, the small-panel windows. This house has a distinct personality and charm.

Exhibit B is presumably located where sunshine is usually welcome, but occasionally over strong; and this facade evidently faces an extended landscape or seascape. Accordingly the windows are treated in groupings of ample size, with awnings and recessed porches for protection from the glare. The use of large view windows in the bays, marking the axes of principal rooms, is noteworthy. The long horizontal lines of the house are accentuated by the unbroken ridge, the bays and the overhanging second story. One can imagine this house on an eminence commanding the sea, where the keen salt breeze is tempered by the warmth of the sun, and the terrace suggests the bright hues and pleasant flutter of summer social life.

Exhibit C presents a very different type of life and dwelling but one that seems equally well to fit its needs and environment. Here is a sheltered, informal garden of the family that cares for privacy, and this house suggests its sturdy English forebears with irregular gables and entrances and groups of small sash. This



C.—THE DOMESTIC QUALITY OF THIS HOME IS EMPHASIZED BY THE IRREGULAR GABLES AND GROUPS OF SMALL-PANED SASH.



## THE BUILDING REVIEW



D.—THERE IS A REFINEMENT, AN ELEGANCE, TO THE PROPORTIONS AND DETAIL OF THIS VILLA WHICH WOULD BE LOST WITH A LESS RESTRAINED TREATMENT OF THE OPENINGS

is evidently a year-round home, prepared for winter storms as well as summer sun.

Exhibit D returns to the more formal, the villa type, and this illustration presents the entrance front. But its formality is relieved by the interesting group of round-headed sash in the second story, probably demanded for a "morning room" or boudoir, and by the balcony from which one can imagine the host leaning to welcome the coming or speed the parting guest (and probably never used for that purpose). The two balancing loggia wings suggest that a delightful garden surrounds the building on its other three sides. Altogether, this reproduces with extraordinary success the restrained charm of the Italian villa of the better class, even to the environment. It would be difficult to suggest an improvement to this design.

Exhibit E transports one straight to the "Sunny South" where the formal, dignified, lofty proportions of the mansion correspond to the courtly manners and lavish hospitality of its owners. No other treatment of windows could possibly be considered from a standpoint of design, and probably for coolness during the long hot summer, the same proportions are best suited. This is an excellent type of the classic Colonial Renaissance, with formal gardens and spacious approaches.

It is to be noted that while each of the illustrations shows a distinctly successful treatment of a separate problem, and all use different types and arrangements of windows in meeting the various requirements, nevertheless each treatment is consistent; there is no mixing of styles, no use of several different kinds and sizes of openings, sash and panes. In other words, it is certainly possible for a man to build a home which will satisfy any requirement of practical needs or local conditions, and still retain the beauty and harmony which should distinguish the home of a civilized being. And there is no part of the facade which is more

important in determining this element of harmonious and beautiful design, then the windows, which express the needs and interests and, in short, the character of the builders. That is one reason why an old house re-modeled often seems to have more individuality than a new one; it is frankly altered to suit the owner's wishes. But it is possible (and should be obligatory) to put sufficient study into every new building to indicate both the comfort and the character of the family.



E.—DESPITE THE EXTREMELY FORMAL STYLE OF THIS MANSION, ITS LOFTY WINDOWS AND COLONNADE CONVEY THE SPIRIT OF SOUTHERN HOSPITALITY.

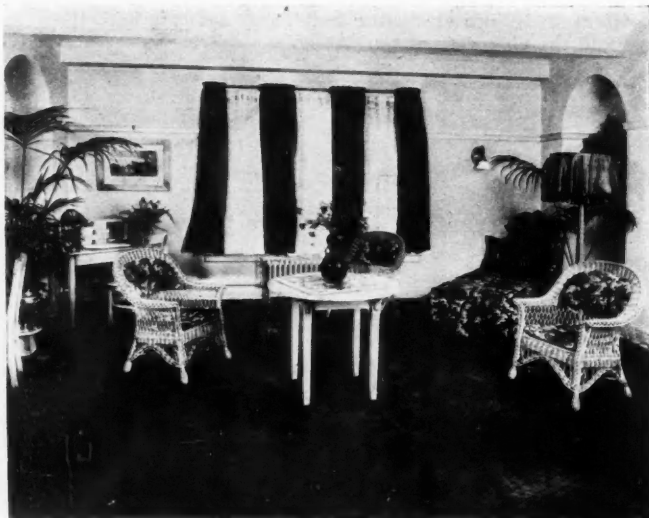
THE BUILDING REVIEW

# INTERIOR DECORATION

SOME CONSISTENT INTERIORS



ENGLISH LIBRARY—CUTTER & MALMGREN, Architects



THE SAME ROOM TREATED WITH DIFFERENT HANGINGS AND FURNITURE  
FRANCIS W. SWALES, Architect

# THE BUILDING REVIEW



ENGLISH LIBRARY—CUTTER & MALMGREN, Architects



LIVING ROOM—CUTTER & MALMGREN, Architects



# The CONTRACTOR

## BUILDING TRADES ASSOCIATION

The following is a draft of Articles of Association proposed for uniting the members of the various Los Angeles building trades into trade organizations.

### ARTICLES OF ASSOCIATION OF .....

This Association shall be known as ..... and is founded for the following purposes:

To provide for the general betterment and raising of the standard of the trade relations and the ethics of the craft.

- Uniform accounting.
- Standardized estimate sheets.
- Standardized bid forms.
- Standardized contract forms.
- Universal pay day.

To provide means of securing a reasonable profit and if more than a reasonable profit is being obtained to provide means of lowering profit to a reasonable profit.

### SECTION I.

The firms comprising this Association shall consist of all responsible parties regularly engaged in.....

Any individual other than signers of these Articles applying for membership shall be admitted on such basis and terms as the before mentioned members shall determine by a majority vote.

Any member in arrears for fines more than thirty (30) days from date of written notice of assessment of such fine by the Secretary, in case no appeal shall have been filed in accordance with the provisions of these Articles, may be expelled from this Association by a majority vote of all members of this Association.

### SECTION II.

The officers of this Association shall be President, Vice-President, Secretary, Treasurer.

### SECTION III.

The President shall preside at all meetings of this Association when present; in his absence the Vice-President shall preside.

The President, Vice-President and Treasurer shall hold office one year or until their successors are elected and shall draw no salary.

### SECTION IV.

The Secretary shall be a qualified accountant and shall be removed at any time by a majority vote of all members of the Association. He shall act as Manager of the Association and shall have personal supervision over all matters pertaining to the carrying out of the rules of the Association as adopted and amended from time to time. He shall make a complete audit of the books of each or any member whenever requested by any member. He shall act as a general credit advisor for all members, shall secure and file for reference information as to the standing of contractors and others and shall furnish same on request.

He shall check up as may be necessary, jobs so as to determine whether they are in accordance with estimate sheets turned in.

He shall investigate all complaints of irregularities (which must be made in writing) and assess all fines as provided for violations of the rules of the Association, subject to appeal as hereinafter provided.

He shall keep a record of all meetings of the Association. He shall keep a record of all reports made to him by members of the Association and all information thus coming to him shall be held by him as confidential, and shall under no circumstances be given to any member of the Association or other person except as it may be regularly presented at meetings of the Association.

The Secretary's term of office and compensation shall be fixed by a majority vote of the members present at a meeting of the Association; provided subject has been listed in the call of the meeting.

The Secretary shall give a surety bond in the sum of \$..... conditioned for the faithful performance of his duties, the premium to be paid out of the Treasury of the Association.

### SECTION V.

The Treasurer shall be elected from the members and by a majority vote, and shall have charge of all the funds of the Association and pay out said funds if checks are countersigned by the President, on the order of the members by a majority vote, except in case of the Guarantee and Supplemental Guarantee Fund which shall be handled in the following manner:

Each member shall deposit with the Treasurer the sum of \$..... which shall be payable as follows:

Concurrently with the person or firm becoming a member of the Association he or it shall deposit the sum of \$..... in current funds of the United States or in unregistered United States Government Bonds which shall constitute what shall be known as the Guarantee Fund.

In addition thereto on or before the tenth of each month each member shall pay to the Treasurer a sum equal to ..... per cent. of each contract completed by each member during the preceding month until the amount so paid by each member shall equal the sum of \$..... This sum shall be known as the Supplemental Guarantee Fund.

The amount paid by the members as a Guarantee and Supplemental Guarantee Fund shall be deposited in the city of Los Angeles, State of California, in the name of the Treasurer of the Association as Treasurer of the Association.

No member shall withdraw from the Association until ninety (90) days notice in writing shall have been given.

In the event of withdrawal of any member after notice as aforesaid the Treasurer shall be empowered to return to the withdrawing member, after his resignation has been acted upon and accepted and without referring to the Association, the Guarantee Fund of \$..... unless there is at the time of withdrawal any fine or assessment unpaid when the amount so assessed shall be deducted and the balance of \$..... then paid. No part of the fund accumulated from monthly assessments of ..... per cent. of the contract executed known as the Supplemental Guarantee Fund shall be paid to the withdrawing member or member expelled for cause unless he is withdrawing entirely from the business, but in the event the Association is dissolved by a regular action such fund shall be distributed pro rata among the members at the time of dissolution in proportion to the amount each has contributed.

The Treasurer shall keep a ledger account with each member showing the amount paid in and the amounts deducted for fines or assessments, if any. The Treasurer shall give a surety bond of \$..... conditioned for faithful performance of his duties, the premium to be paid out of the Treasury of the Association.

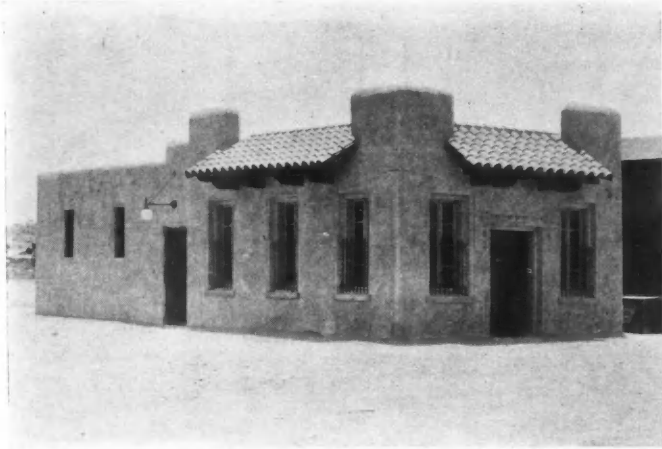
### SECTION VI.

Regular meetings of the Association shall be held on the ..... of each month at ....., at such place as may be determined by a majority vote of the members of the Association. A quorum shall be ..... Extra or special meetings may be held at any time that two members may request on twenty-four (24) hours notice, either verbal or by telephone to the Secretary who shall then advise all members in person or by telephone of such meeting.

### SECTION VII.—METHOD OF BIDDING.

At the first meeting of this Association all members shall agree on a profitable basis of bidding on contracts, which cannot otherwise be secured on a profitable basis. The price so fixed by members of this Association shall allow for a reasonable profit on contracts secured by members of the Association and no more. All members of this Association shall maintain such basis of bidding so fixed by the members of this Association. It shall be the duty of the members of this Association, if conditions change so that such basis of bidding shall not allow a reasonable profit to the members of this Association, or in case such basis of bidding shall allow more than a reasonable profit to the members of this Association, to change such basis of bidding from time to time so that a reasonable profit and no more shall be obtained.

## THE BUILDING REVIEW



VIEW FROM STATION ARCADE  
TOWN SITE, NEW CORNELIA COPPER COMPANY, AJO, ARIZONA  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects

A record in duplicate shall be made of all estimates on uniform sheets and record in triplicate shall be made of all bids on uniform forms. The original and one copy of the bid shall be mailed or delivered to the Secretary together with duplicate of estimate sheet and after being checked by him the original shall be mailed to the customer and his copy of the bid and estimate sheet filed for record. The bidder to complete contract according to estimate sheet and if any extra work is required it shall be done on a time and material basis at a price of \$..... per unit and same so reported to the Secretary. Failure on the part of the contractor so to report extra work or so to do extra work shall subject him to a fine of \$..... per unit with a minimum penalty of \$..... in each case.

### SECTION VIII.—BASIS OF PAYMENT

With fine for not complying with rule.

No allowance, payment, gift or other consideration beyond the regularly authorized cash discount shall be promised, tendered, paid or given directly or indirectly to influence the securing of a contract to any one outside the membership of this Association. The penalty for violation of this clause shall be \$..... per unit with a minimum penalty of \$..... in each case.

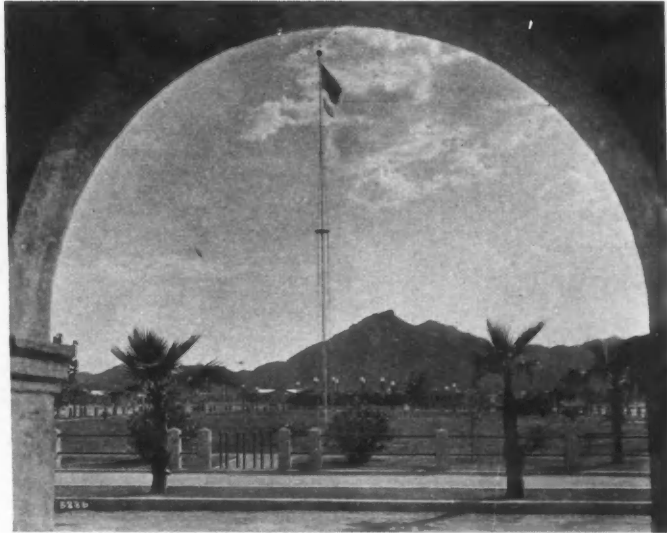
No allowance beyond the regular cash discount shall be made in settlement except by previous sanction of the Secretary who shall keep a record of such extra allowances as may be authorized by him for any legitimate reasons and report same at next regular meeting of this Association. Penalty for violations of this clause shall be \$..... per unit with a minimum penalty of \$..... in each case.

All contracts shall be on uniform blanks furnished by the Secretary of the Association. When a contract has been secured by any member no other member shall attempt to secure said contract. If a customer shall complain that his contract is not being properly carried out no other contractor shall take such contract until all facts have been investigated by the Secretary or other arbitration committee appointed and his or their sanction given. If they find that reasonable service is being given and that quality of workmanship is according to contract and specifications he shall not sanction any contractor completing the contract other than the original contractor.

### SECTION IX.—REPORTS

All members of this Association agree to furnish each day correct report to the Secretary of all estimates and bids in such form as adopted by a majority vote of the members of this Association.

It shall be the duty of any member of this Association who has knowledge that property on which any building is to be erected is heavily encumbered or subject to liens prior to labor and material liens promptly to report same to the Secretary who upon investigation shall call a special meeting for the purpose of passing on the credit arrangements to be made on the job, and the unanimous ruling of the members shall be binding upon all. Penalty for violation of this rule shall be \$..... per unit with minimum penalty of \$.....



JAIL  
TOWN SITE, NEW CORNELIA COPPER COMPANY, AJO, ARIZONA  
WILLIAM M. KENYON, MAURICE F. MAINE, Architects

### SECTION X.—ATTORNEY

A regular Attorney shall be chosen from outside the Association to give all legal advice and service required by this Association on such terms and for such period as may be agreed upon by a majority vote of this Association.

### SECTION XI.—FINES.

The fine for violating any rule of this Association where such fine is not specifically set out in the particular rule, shall be \$.....

All fines shall be assessed by the Secretary and charged to the offending member who shall promptly be notified of such action.

The collection from such fines shall be applied to the liquidation of the current expenses of the organization.

Members of this Association shall have the right to appeal to the members of the Association regularly assembled and the ruling of a majority of the members shall be final. All appeals must be in writing and must be filed through the Secretary within ten days from date of notice of assessment.

### SECTION XII.—EXPENSES.

In order to provide for the necessary expenses of this Association the several signers of these Articles agree to pay monthly on demand, into the hands of the Treasurer, on receipt of statements from the Secretary, a sum equal to the same proportion of the total expense as their contracts completed bear to the total of all contracts completed by all members combined in the previous month. Included in the necessary expenses shall be a monthly per capita tax for a membership in the Building Industries Association for each member of this Association. They shall in addition pay all fines hereinafter provided, the proceeds of such fines to be applied against expenses of the month in which paid.

### SECTION XIII.—AUDITING BOOKS OF ASSOCIATION.

The books of this Association shall be audited at least twice a year by a committee appointed by the members of this Association.

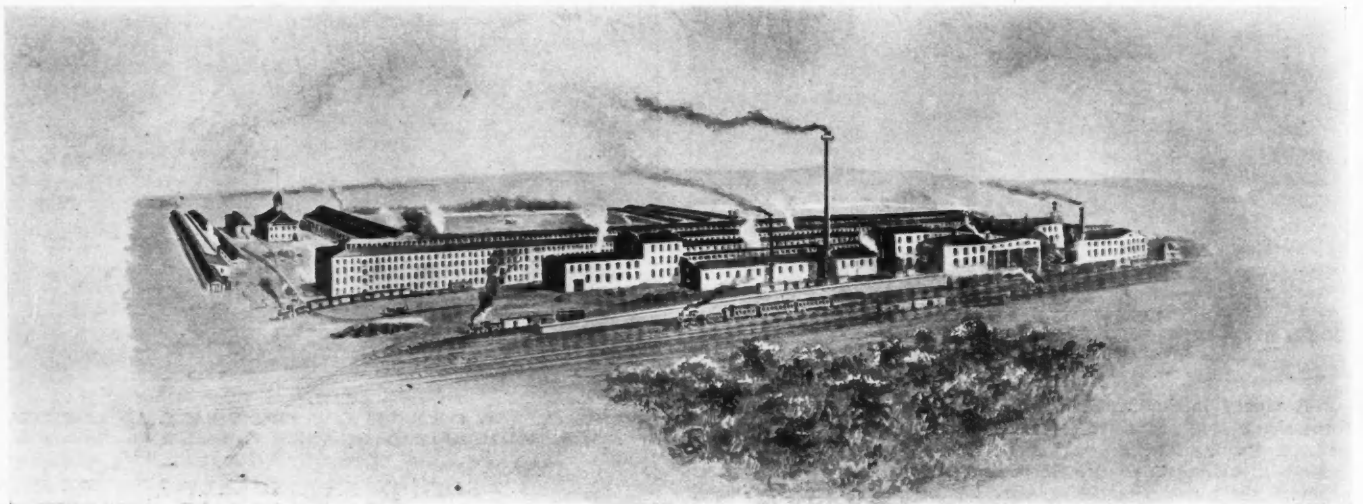
### SECTION XIV.—AMENDMENTS.

These by-laws may be amended in the following manner:

Notice shall be given at any regular or called meeting of such proposed amendment, which shall be taken up for discussion at the next regular or special meeting if not more than two-thirds of the total membership shall vote against the proposition it shall be considered adopted.

In view of the benefits to be mutually derived by the undersigned from a faithful observance of these by-laws by all members of this Association and the positive detriment to the best interests of the members which would result from failure to act in accordance therewith in every particular, we agree to be bound by these by-laws as made and as amended from time to time, and on failure to do so to pay the fine therein provided.

# The MANUFACTURER



PLANT OF KEASBEY & MATTISON COMPANY, AMBLER, PENNA.

## HOW A SINGLE INDUSTRY DEVELOPED AMBLER, PA.

Rapid Growth of Asbestos Manufacturing Concern is Important Factor in Growth of Town—Biggest Plant of its Kind in the World

By CHARLES P. MARTYN

THE Keesbey & Mattison Company are owners of the largest asbestos mines in the world, situated in the province of Quebec, Canada. The raw product of these mines is shipped directly to Ambler, Pa., there by the most scientific of methods and the most modern of machinery, to be transformed into asbestos lumber, asbestos shingles, asbestos tape, asbestos cloth and other products of vast importance commercially.

Exclusive of its army of clerks and salesmen, the firm carries on its pay roll nearly 1300 well-paid and happy working people.

Before describing the various products that the efforts of this army of workmen turn out in Ambler, a few words telling of the history of asbestos itself may not be considered out of place.

The historians of old Greek and Roman culture have mentioned repeatedly that the corpses of their Kings and heroes, when prepared for cremation, were wrapped in incombustible blankets in order to separate their ashes from those of the funeral pile, and Pausanias states that the wick of the eternal lamp in the temple of Pallas Athene in Athens was made of "crystallic flax." Charlemagne amused and astonished his guests by having a table cloth, made from "cotton stone," cleaned after meal by throwing it into the fire and taking it out again unburnt and uninjured.

However, the practical use of asbestos was for a long time of a sporadic nature only, and the first experiments for using it on something like a commercial scale were made in the Alps in the early seventies; at about the same time the first specimens of a very fine asbestos from Canada, with silk fibers, were exhibited in London, but it was not until 1878 that mining operations of a tentative character were commenced in the Dominion. A lot of about fifty tons of selected crude asbestos was shipped to England, but great difficulty was experienced in marketing it, as no regular demand for asbestos was established as yet; the uncertainty of the supply, as well as the high price due to the very crude mining methods conducted on a small scale, were responsible for this lack of interest.

The asbestos industry is a striking example of what human ingenuity if applied in the right direction can accomplish. There are now about ten plants in the world devoted to the manufacture

of asbestos products, and right next door to Philadelphia the Keesbey & Mattison Company, started in 1882, has by far the greatest of these, in number of employees, acreage covered by factories, and products turned out.

One of the Ambler factories where 450 persons are employed, is devoted exclusively to the manufacture of shingles. Concerning this branch of the work an official of the company says:—

"In asbestos shingles one has a roof, when properly applied, that will outlast the lifetime of the building. The simple exposure to the elements causes the cement, that has been deposited upon the asbestos fiber in the process of manufacture, to crystallize, and it then becomes better and better; in fact, more serviceable as time rolls on. Cement has been known to crystallize as long as twenty-eight years from the time it was first mixed. This is only proof of the claims made for asbestos shingles—that they improve, toughen and harden with exposure to the elements and atmospheric conditions.

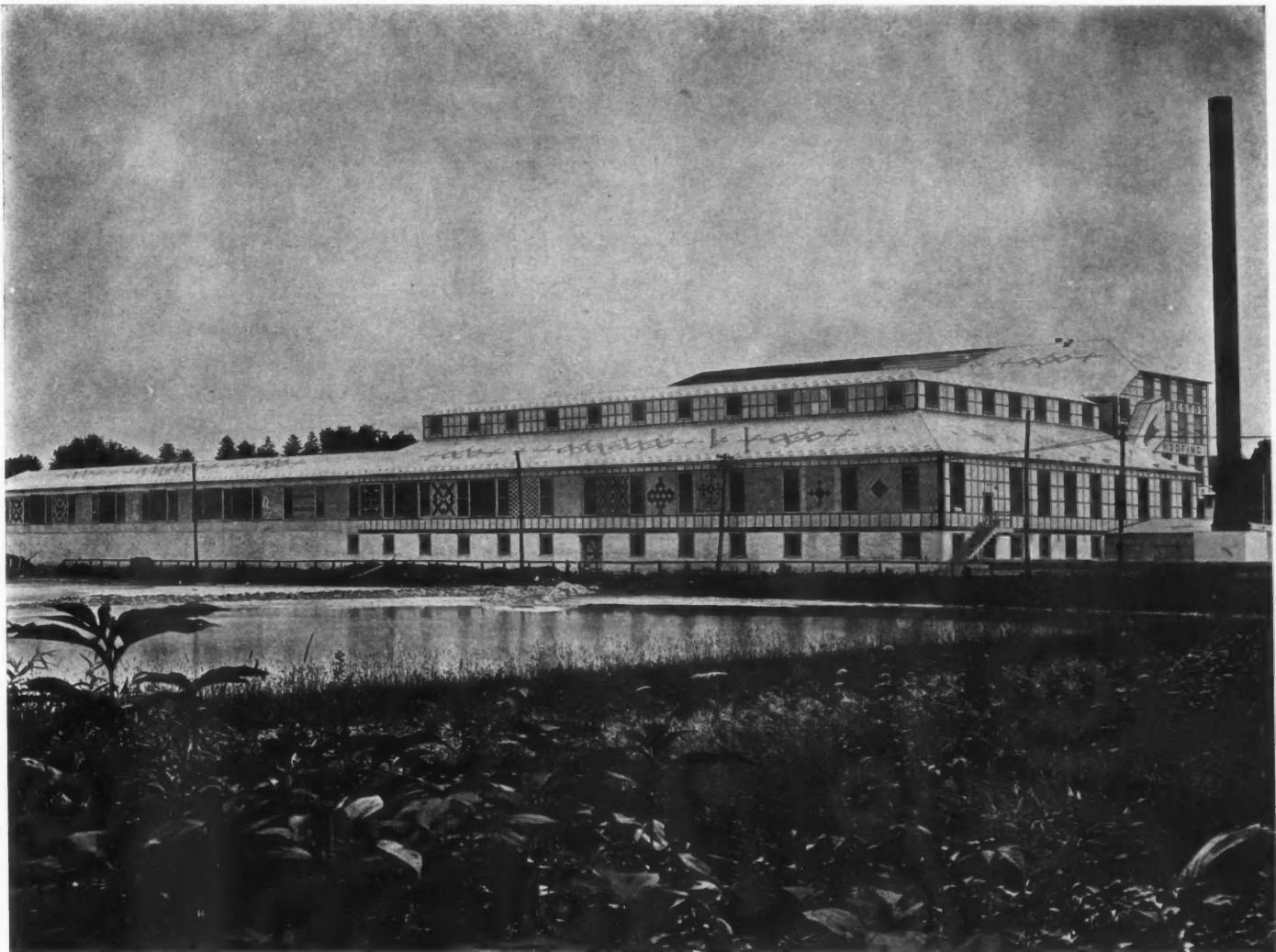
"Another good point which these shingles have, and it is not to be overlooked by any manner of means, is the fact that they do not have to be painted to preserve them, as the elements take better care of asbestos shingles than the best paint or dressing that has ever been manufactured.

"Asbestos fiber has remained exposed to the elements for unnumbered centuries, without deterioration. Its well-known fireproof quality renders it the most suitable fiber upon which to crystallize the cement deposited thereon in the course of manufacture. It is therefore evident from the well-known qualities of these two materials, that nothing could have been selected that would have been more fireproof, indestructible and everlasting than asbestos fiber and hydraulic cement as raw materials from which to prepare a permanent building material, such as we have derived through asbestos shingles and asbestos building lumber.

"Nails may be driven through asbestos shingles and asbestos building lumber by a quick, sharp blow of the hammer, quite close to the edge without danger of fracture, thus differing materially from all other sheathing materials in the important attribute of toughness and homogeneity."



## THE BUILDING REVIEW



PLANT OF ASBESTOS SHINGLE, SLATE & SHEATHING COMPANY, AMBLER, PENNA., U. S. A.

Another official, in discussing the manifold uses of asbestos lumber says:—

"The laws of Massachusetts, Connecticut, New York, Pennsylvania and other States, specify asbestos building lumber exclusively for the construction of moving picture booths, while the States of Ohio and Indiana specify it as an alternate with sheet iron, giving preference to asbestos building lumber.

"Where absolute fireproofness is desired, the entire construction, including doors and windows, closets, wardrobes, bookcases, filing cabinets, elevator shafts and chutes, wire conduits and electrical bus bar and compartment floors, bathrooms, toilets, washrooms, etc., can be carried out in this material.

"In the construction of window casings it is used for the stools, aprons and sills, attached by screws to hemlock or angle iron frames. Door casings are constructed in the same manner, the joints exposed to the weather being treated with asbestos slaters' cement to prevent penetration of water.

"The advantage of this material in the neighborhood of electrical conductors will be readily understood, as it is a good insulator of both heat and electricity, and is capable of producing short circuits, while it effectively confines the effects of short circuits. By preventing the ingress of water and of rats, mice and other vermin, the danger of short circuits is greatly reduced.

"In the construction of malt drying kilns, chemical laboratories, refrigerator rooms, meat smoke houses and meat storage rooms, confectioners' workrooms, etc., the fireproof and heat insulating qualities of asbestos building lumber are of great ad-

vantage, as are also its immunity to the effects of moisture, vapors and fumes."

A trip through the various plants of the company is well worth the while of anyone interested in industrial enterprise. Everywhere one sees the results of scientific management. Expert workmen handle the most modern of machinery and work with a precision which indicates the careful and efficient supervision of the firm's department heads.

The use of asbestos corrugated roofing and siding has become very common, due to the many advantages of construction and economy. These sheets of asbestos mixed with hydraulic cement by a special process, offer great strength and the corrugations lend themselves to the ready making of waterproof joints. The process of manufacture was devised by this firm some ten or twelve years ago, and after experimenting with metal re-inforcement, etc., it was found that by compressing the asbestos-cement material in the corrugated shape to about 100 tons per square foot, an extremely strong and thoroughly compacted structure resulted, which not only withstands rough treatment, but is unaffected by weather influences. This is being widely used for covering the buildings of steel and iron companies, gas works, elevators, chemical works, machine shops, foundries, warehouses, pier sheds, etc. Its permanent character renders it much more economical in the long run than corrugated iron, either bare or coated.

The California agency for all Keasbey & Mattison Building Materials is maintained by J. A. Drummond, 245 Mission Street, San Francisco.

# REFERENCE INDEX OF ADVERTISERS

Containing List of Manufacturers, Their Representatives and Useful Literature

## ASBESTOS BUILDING LUMBER

**Kearney & Mattison Co.,** Ambler, Pa.

**J. A. Drummond,** 245 Mission Street, San Francisco, Cal.  
Illustrated and descriptive pamphlet, 7 1/4 x 10 1/4, 8 pp. Pamphlet, 4 x 8 1/2, 8 pp. Price list, 3 1/2 x 6 1/4. Literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16 1/2 x 21 1/2.

## ASBESTOS CORRUGATED SHEETING

**Kearney & Mattison Co.,** Ambler, Pa.

**J. A. Drummond,** 245 Mission Street, San Francisco, Cal.  
Descriptive catalogue, 5 1/4 x 8 1/4, 24 pp. Catalogue of details and specifications for application of roofing and siding, size 8 1/2 x 11, 40 pp. Lists of buildings covered. Price lists, 3 1/2 x 6 1/4, 6 pp., and literature of various sizes, samples, etc. "Service Sheets," working drawings, details of application, size 16 1/2 x 21 1/2.

## ASBESTOS SHINGLES

**Kearney & Mattison Co.,** Ambler, Pa.

**J. A. Drummond,** 245 Mission Street, San Francisco, Cal.  
Illustrated catalogue, Detail specifications, 8 x 10, 20 pp. Descriptive catalogue, various types of roof covering, 5 1/4 x 8 1/4. Various pamphlets, 3 1/2 x 6. Current price lists, 3 1/2 x 6 1/4, 6 pp. Lists of buildings and literature, various sizes, samples, etc. "Service Sheets," working drawings. Detail of application, size 16 1/2 x 21 1/2.

## BARS, REINFORCING

**Pacific Coast Steel Co.,** Rialto Building, San Francisco, Cal.  
Square, round and corrugated.

## BRICK, FIRE AND REFRACTORIES

**Gladling, McBean & Company,** Crocker Bldg., San Francisco, Cal.  
**Simons Brick Company,** 125 West Third Street, Los Angeles, Cal.

## BRICK, PRESSED

**Gladling, McBean & Company,** Crocker Bldg., San Francisco, Cal.  
**Simons Brick Company,** 125 West Third Street, Los Angeles, Cal.

## CEMENT, PORTLAND

**Santa Cruz Portland Cement Co.,** Crocker Bldg., San Francisco.  
**Standard Portland Cement Co.,** Crocker Bldg., San Francisco, Cal.  
Bulletin, 12 pp. Size 6 x 9; also furnish bulletins and specifications for various classes of work requiring Portland Cement.  
**Henry Cowell Lime and Cement Co.,** 2 Market St., San Francisco.  
**Cowell Portland Cement Co.,** Cowell, Cal.  
Mt. Diablo Brand especially adapted for cementing oil wells. Literature and pamphlet supplies on request as furnished by the Portland Cement Association.

## COLD STORAGE INSULATION

**Van Fleet-Freear Co.,** 120 Jessie Street, San Francisco, Cal.  
Illustrated catalogues, etc.

## CONTRACTOR'S ASSOCIATIONS

**Building Industries Association,** 110 Jessie St., San Francisco.  
**General Contractors Association,** Sharon Building, San Francisco.

## CORK FLOOR

**Van Fleet-Freear Co.,** 120 Jessie Street, San Francisco, Cal.  
Illustrated catalogues, etc.

## ELECTRICAL EQUIPMENT

**Kearney & Mattison Co.,** Ambler, Pa.

**J. A. Drummond,** 245 Mission Street, San Francisco, Cal.  
Descriptive Pamphlet, 3 1/2 x 6, 12 pp. Descriptive, 4 x 8 1/2, 8 pp. "Service Sheets," working drawings. Detail of application, 16 1/2 x 21 1/2.

## ELEVATORS

**Otis Elevator Co.,** Eleventh Avenue and 26th Street, New York.  
**Otis Elevator Co.,** 2300 Stockton Street, San Francisco, Cal.  
Offices in all principal Coast cities. Otis Electric Traction Elevators. Bulletin, 6 x 9, 28 pp.

## ESCALATORS

**Otis Elevator Co.,** Eleventh Avenue and 26th Street, New York.  
**Otis Elevator Co.,** 2300 Stockton Street, San Francisco, Cal.  
Offices in all principal Coast cities. Otis Escalators. Bulletin, 6 x 9, 36 pp.

## GLASS

**W. P. Fuller & Co.,** Principal Coast cities.  
Plate, Sheet and Mirror Lists. Glass Samples.  
**Kearney & Mattison Co.,** Ambler, Pa.  
**J. A. Drummond,** 245 Mission Street, San Francisco, Cal. Pacific Coast representative CORRUGATED WIRE GLASS for skylight construction (without housings), used in connection with Asbestos Corrugated Sheeting. Catalogue of details, 8 1/2 x 11, 40 pp.

## IRONING BOARDS

**National Mill & Lumber Co.,** 318 Market Street, San Francisco, Cal.  
Pamphlet, 3 1/2 x 6 1/4, 4 pp.

## LANDSCAPE ENGINEERS

**MacRorie-McLaren Co.,** 141 Powell Street, San Francisco, Cal.  
Descriptive catalogue, 5 x 8 1/2, 52 pp.

## LIGHTING EQUIPMENT

**The Reflectolyte Co.,** 914 Pine Street, St. Louis, Mo.  
**J. A. Drummond,** 245 Mission Street, San Francisco, Cal.  
Reflectolyte, containing specifications, illustrations and engineering data for superior indirect illumination. 7 1/4 x 10 1/2, 24 pp. Folder, 3 1/2 x 6 1/4, illustrating the Junior Reflectolyte for inexpensive installation.

## LIME

**Henry Cowell Lime and Cement Co.,** 2 Market Street, San Francisco, Cal.

## MILL WORK

**National Mill & Lumber Co.,** 318 Market Street, San Francisco, Cal.  
Catalogue of Moulding Columns, Doors and General Mill Work, 7 x 10, 94 pp.

## PAINTS, ENAMELS AND WOOD FINISHES

**Berry Bros.,** Wight and Leibe Streets, Detroit, Mich.  
**Berry Bros.,** 250 First Street, San Francisco, Cal.  
Natural Woods and How to Finish Them. Complete varnish specifications. 4 1/2 x 6 1/2, 94 pp.  
**Luxberry Cement Coating,** Color card, 3 1/2 x 8 1/2, 3 pp.  
**Architectural Finishes.** Illustrated.  
**Boston Varnish Co.,** Everett Station, Boston.  
**San Francisco Office, A. L. Greene, Mgr.,** 269 Eighth Street.  
**Kyanize Enamel.** Complete specifications. Booklet, 5 x 7, 20 pp.  
**Kyanize White Enamel.** Directions. Circular, 3 1/2 x 6, 8 pp.  
**Recent Pacific Coast Architecture.** Illustrated.  
**The Inviting Home.** Illustrated.  
**Price List of Varnishes and Enamels.** 3 1/2 x 6, 24 pp.  
**W. P. Fuller & Co.,** Principal Coast cities.  
Paints and Varnish specifications. 14-page booklet.  
**Pertinent Facts on Paints and Painting.** 14-page booklet.  
Color cards and descriptive circulars on: House Paints, Floor, Porch and special paints for all purposes.  
**Silkenwhite Enamel, Tinted Panels,** and descriptive matter, Wall Finishes and Kalsomine. 20-page booklet.  
**Decorator's Sample Books.**  
**R. N. Nason & Co.,** 151 Potrero Avenue, San Francisco, Cal.  
Catalogues, literature and color cards.  
**Standard Varnish Works,** New York and San Francisco.  
Architectural Specifications.  
How to Finish Floor. Booklets.  
**Satinette Enamel.** Booklets.  
How to Finish Stained and Natural Woods.  
**Klenstone Stain Reproductions.**  
Makes the World Grow Brighter. Pamphlets.  
**Wadsworth, Howland & Co., Inc.,** 139 Federal Street, Boston.  
**San Francisco Office, James Hamby & Sons,** 268 Market Street, San Francisco, Cal.  
**Bay State Brick and Cement Coating.** Catalogue, 4 x 9, 24 pp.  
Color plates.  
**Bay State Finishes, Stains, and Varnishes.** Pamphlets. Color cards, etc.  
**Los Angeles Office,** 447-449 E. Third Street, Los Angeles, Cal.

## PLUMBING EQUIPMENT

**Pacific Sanitary Mfg. Co.,** 67 New Montgomery Street, San Francisco, Cal.  
**Northern Manager, H. L. Frank,** 80 Front Street, Portland, Ore.  
**T. A. Williams,** Scott Building, Salt Lake City, Utah.  
General catalogue "C," 6 1/2 x 9, 176 pp. Indexed.  
School Sanitation Book, 6 x 9, 32 pp.  
Export Catalogue "E," 6 x 9, 160 pp.  
Book of Bath Rooms (for clients), 6 x 9, 56 pp.  
**Standard Sanitary Manufacturing Co.,** San Francisco Warehouse, Display Rooms and Offices, 149 Bluxome Street.  
**Los Angeles Warehouse,** Display Rooms, Offices, 216-224 South Central.  
**Seattle,** 5300 Wallingford Avenue.  
General Catalogue "P," 9 x 12, 674 pp. General Catalogue "PF," 9 x 12, 229 pp. Factory Sanitation Catalogue, 9 x 12, 36 pp. Built-in Bath, 9 x 12, 37 pp. Pottery Catalogue Sanitary Earthenware, 9 x 12, 38 pp. Shower Booklet, 3 1/2 x 6, 19 pp. Efficiency Kitchen Book—Modern Kitchen Equipment, 5 x 7, 15 pp. Plumbing Fixtures for the Home, 5 x 7 1/2, 63 pp.

## PIPE, WOOD

**Pacific Tank & Pipe Co.,** 318 Market Street, San Francisco, Cal.  
Catalogue of wood pipe and tanks for all purposes. 4 x 8 1/2, 40 pp.

## PORTABLE HOUSES

**National Mill & Lumber Co.,** 318 Market Street, San Francisco, Cal.  
Catalogue Treatise on Portable House. Suitable for any location. Size 4 x 9, 12 pp.

